

# **Forced Action Mixer**

**FAM-120-AU** 

**FAM-120-UK** 

**FAM-120-US** 



**OPERATOR'S MANUAL** 

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#### INTRODUCTION

Thank you for purchasing a MAKINEX product.

This manual provides information and procedures to safely operate and maintain the Forced Action Mixer. For your own safety and protection from injury, carefully read, understand and observe the safety instructions described in this manual.

Keep this manual or a copy of it with the machine. If you lose this manual or need an additional copy, please contact MAKINEX. This machine is designed and built with user safety in mind; however, it can present hazards if improperly operated and serviced. Please follow the operating instructions carefully. If there are any questions regarding operating or servicing of this machine, please contact MAKINEX.

The information contained in this manual was based on machines in production at the time of publication. MAKINEX reserves the right to change any portion of this information without notice.

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Any type of reproduction or distribution not authorised MAKINEX represents an infringement of valid copyrights and will be prosecuted. We expressly reserve the right to make technical modifications, even without due notice, which aim at improving our machines or their safety standards.

# **DISCLAIMER**

MAKINEX and its affiliates take no responsibility for any damage, injury or death resulting from the incorrect or unsafe use of this product. Use of this product should be undertaken by competent persons only. It is the operator's responsibility to ensure that the following safety procedures are followed. If you are unsure, do not operate this product.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty enquiries.

MAKINEX SUPPORT
Refer to CONTACT INFORMATION section
MODEL NO.
FAM - 120
SERIAL NO.
DATE OF PURCHASE
PURCHASE LOCATION

#### **ABOUT THIS MANUAL**

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment. Follow all safety messages to avoid or reduce the risk of serious injury or death.

#### **KEY TERMS**



**READ CAREFULLY** – refers to *important information* that should be paid careful attention.



**CAUTION** - indicates a potential hazardous situation which, if not avoided, *may* result in minor or moderate injury



**WARNING** – indicates a potentially hazardous situation which, if not avoided, *could* result in death or serious injury



**DANGER** – indicates an imminently hazardous situation which, if not avoided, *will* result in death or serious injury



**PROHIBITED** – identifies actions that **should never** be carried out by anyone interacting with the machine.

These safety warnings do not eliminate all possible hazards that could occur therefore it is essential to use common sense and to strictly follow any instructions to prevent accidents.

#### SAFETY INFORMATION



Read this manual **thoroughly** before operating your Forced Action Mixer. Failure to follow instructions could result in serious injury or death



#### **RISK OF ELECTRICAL SHOCK**

Electrical shock can cause burnt marks, cardiac arrest or even death.

- ALWAYS switch off the Forced Action Mixer when not in use.
- ALWAYS unplug all external connection cables or wires before attempting to clean the Forced Action Mixer.
- ALWAYS keep children and pets away from the Forced Action Mixer.
- DO NOT alter or disassemble the Forced Action Mixer.
- DO NOT operate the machine with missing or broken parts.
- **DO NOT** operate the product when fatigued or under the influence of alcohol or drugs.
- In case of fire, use dry powder fire extinguishers. **DO NOT** use water fire extinguishers, which may cause electrical shock.

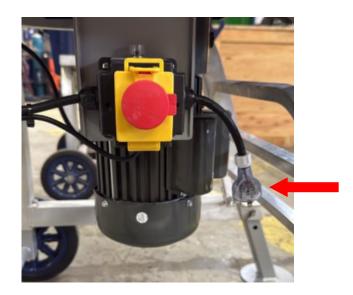
# **EMERGENCY INFORMATION**

In the event of an emergency follow the steps below:

1. To disable the product, push firmly onto the emergency stop button.

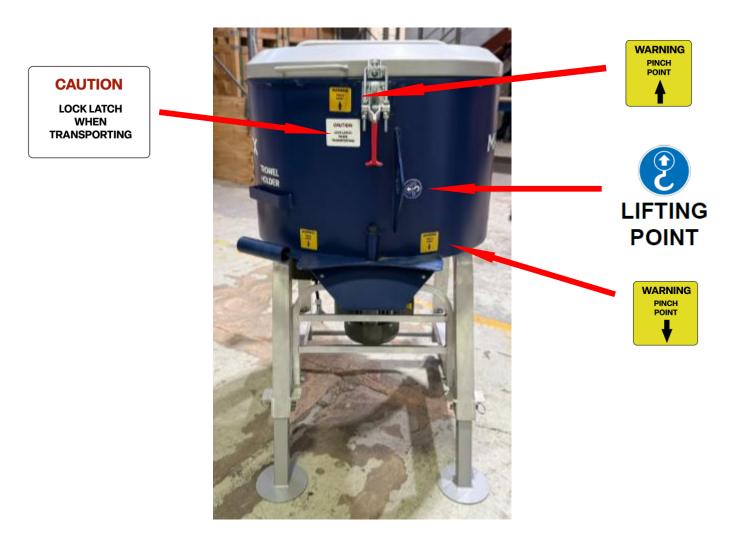


2. Disconnect the inlet plug from external power source.



Always ensure all safety information found in this manual is observed.

# **SAFETY DECALS**



# **ART SPECIFICATION**



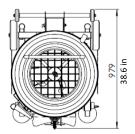
# PRODUCT DESCRIPTION AND SPECIFICATION

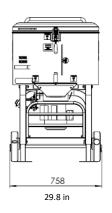
The Makinex Forced Action Mixer is the future of screed/epoxy bound aggregate mixers. They are relatively compact, lightweight, produces little noise and are safe for indoors or confined space when optioned with a dust suppression plate. Built with safety in mind, the unit is complete with a standardised thermal overload protection.

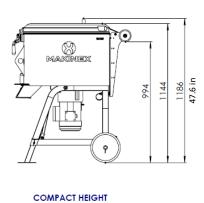
Easily manoeuvrable with durable frame, weather resistant and minimal maintenance. Designed for high load environments in construction, hire and commercial when paired with materials such as screed, mortar, cement, grout and epoxy bound aggregate.

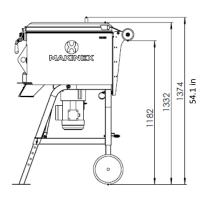
MACHINE SPECIFICATION	DN		
MODEL	FAM – 120-AU	FAM – 120-UK	FAM – 120-US
WEIGHT	120	OKg	265lbs
DIMENSIONS (W X D X H)	758 X 980 X 1	.209mm (min)	29.8 x 38.6 x 47.6in (min)
Similarions (W X 5 X 11)	758 X 980 X 1	.374mm (max)	29.8 x 38.6 x 54.1 (max)
RATED POWER	1.5kW co	ontinuous	1.5kW continuous
	2.3kW instantaneous	1.9kW instantaneous	2.7kW instantaneous
OUTPUT RPM	3	33	30
INPUT VOLTAGE	230V	110V	240V
INPUT CURRENT	10A	23A	9A
FREQUENCY	50	)Hz	60Hz
MIXING CAPACITY	12	20L	31.7 gal
WORKING ENVIRONMENT TEMPERATURE	-10°C	~ 40°C	14°F ~104°F
TEMPERATORE	10 0		111 1011
HUMIDITY		<90%	
INGRESS PROTECTION		44	
TERMINAL BOX INGRESS PROTECTION		54	
CONTINUOUS OPERATION		S1	

# **OVERALL MACHINE DIMENSIONS**









TALLEST HEIGHT

# **OPERATING YOUR FORCED ACTION MIXER**

# **CONTROL INTERFACE**

Below is the control interface of the Makinex Forced Action Mixer





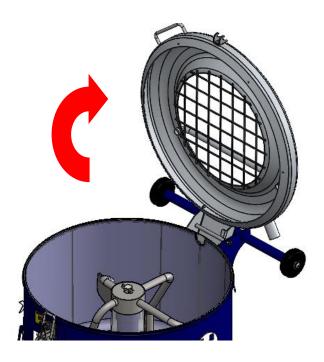
- 1 Emergency off switch
- 2 On Switch
- 3 Off switch
- 4 Thermal Overload Reset Switch

# **HOW TO USE THE LINER**

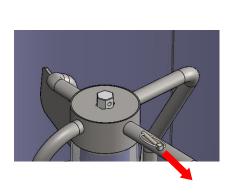
The Makinex Forced Action Mixer is designed to be used with and without the liner. The liner is designed to reduce the amount of downtime of the Forced Action Mixer inbetween jobs by implementing a replaceable layer that can be easily and quickly deployed or removed.

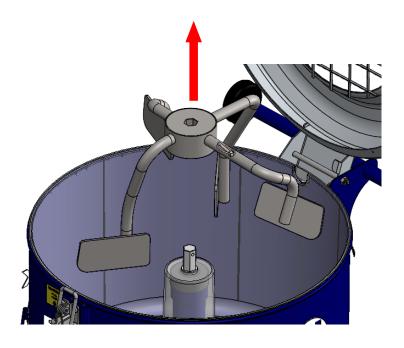
To use FAM -120 without the liner, follow the steps below:

1. Open the lid

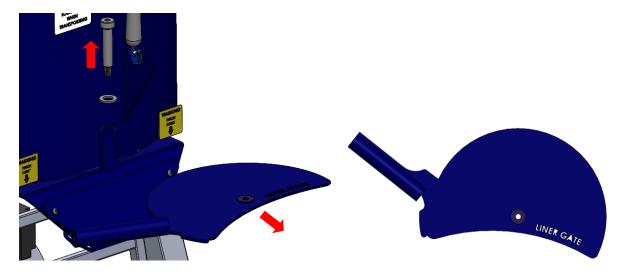


2. Remove the linch pin and paddle assembly

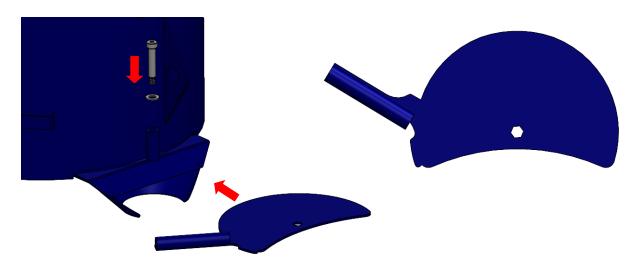




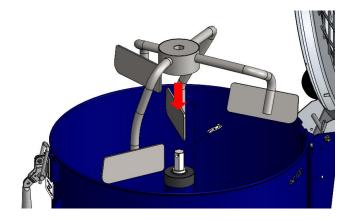
3. Undo the front bolt and washer securing the liner spout gate and remove from unit.

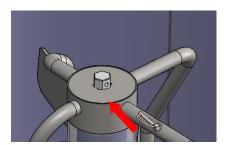


- 4. Remove liner by pulling it out of the drum. May require some agitating action to wiggle liner out of drum.
- 5. Once liner removed, install the larger spout gate that came with the unit upon purchase.



6. Install the paddle assembly and linch pin.





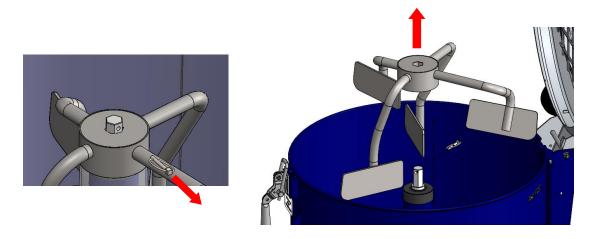
7. Close the lid, and proceed with normal mixing operation

To use FAM -120 with the liner, follow the steps below:

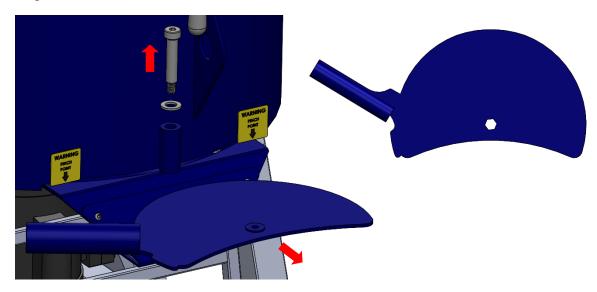
1. Open the Lid



2. Remove the linch pin and paddle assembly

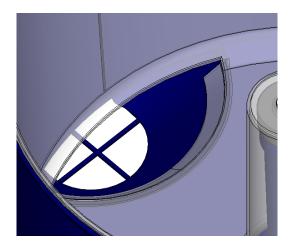


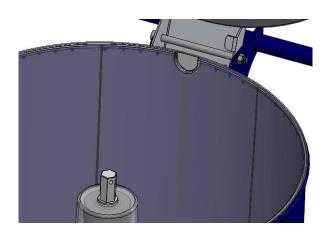
3. Undo the front bolt and washer securing the spout gate and remove the spout gate



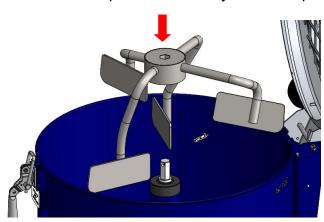
4. Spray the inside of the drum and the outside of the liner with WD40 for ease of installation or removal.

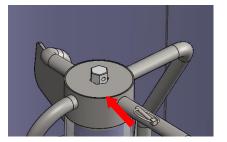
5. Insert the liner. Match the spout of the liner to the spout of the drum. The U shaped locator of the liner should also match the U shape cut out at the back of the drum



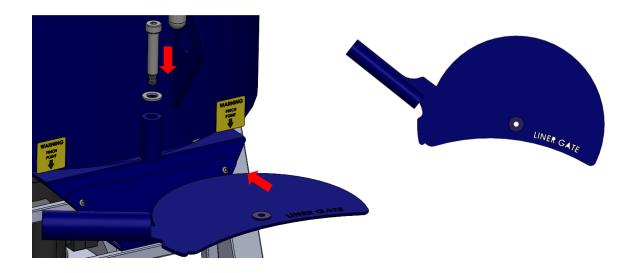


6. Install the paddle assembly and linch pin.





7. Replace Spout gate with the Liner Spout gate that comes with the Forced Action Mixer. Reinstall the front bolt and washer



# **STARTUP OPERATION**

- Ensure machine condition is satisfactory and free from any visual damages.
- Ensure machine is stable on relatively flat surfaces.
- Connect machine to an external power source of single phase 230V for AUS Spec or 110V for UK and US Spec.
- Turn machine on.
- Load material into machine up to 120 Kg or 265 lbs.

# **SHUTDOWN OPERATION**

- Press the emergency stop or the stop button.
- Disconnect power from machine.
- Clean machine thoroughly if necessarily to prevent material build up.

# **WHEN TRANSPORTING**

- Ensure lid is securely latched down.
- Ensure all legs are secured via safety pins.
- Ensure paddle is secured via linch pin
- When loading to the back of truck/ute or trailer, ensure two or more people lifting the machine.

# TRANSPORTING THE PRODUCT

- Lifting Point Use the lifting eye on the Forced Action Mixer to lift the unit. The label adjacent to the lifting eye indicates the total weight of the unit. Please ensure the lifting equipment used is rated for this weight.
- Forklift The Forced Action Mixer can be forklifted from the bottom, using the two horizontal beams as the lifting point.



**WARNING** – DO NOT lift the Forced Action Mixer when the unit is loaded with materials.



**WARNING** – DO NOT lift the Forced Action Mixer without latching the lid.



#### **MAINTENANCE**

# **GENERAL MAINTENANCE**

Always keep the unit clean. Clean the unit with cloth, if epoxy is used, wipe the unit with a cloth damped with white spirit. Pressure cleaning is allowed, do not directly pressure spray on electrical control box and or the motor.

The Forced Action Mixer warranty does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the Forced Action Mixer as instructed in this manual including storage.

### **STORAGE**

Store the unit in a clean, dry and cool indoor area. Keep the unit away from children and pets.

# **TROUBLESHOOTING**

PROBLEM	CAUSE	REMEDY
	Damaged Power Cable	Change cable
Unit does not turn on	Unit has been overloaded	Remove excess material until 120L of material remain and let it cool down for 60 seconds before resetting the thermal overload switch
	On button is stuck	Check if the on button has any epoxy or cement preventing it from operating as intentionally, remove foreign material
	Lid safety switch is not engaged	Close the lid
If the above does not	resolve the issue, please contact Ma centre.	kinex or your nearest authorised service

#### LIMITED WARRANTY

To take advantage of the MAKINEX limited warranty, you must have maintenance performed according to the maintenance schedule (contained in relevant owner's manual supplied with this product), by an authorised MAKINEX dealer or MAKINEX service technician. You are free to have your MAKINEX product serviced by any suitably qualified mechanic or electrician (depending on the mechanical or electrical requirement) and this will not affect your statutory warranties, however, failure by the owner to have the recommended servicing carried out by an authorised MAKINEX dealer/service technician means that you cannot take advantage of the MAKINEX limited warranty.

In order to ensure your safety, we strongly recommend that you only use an authorised MAKINEX dealer for servicing. Only authorised MAKINEX dealers have access to all the special tools, technical information, parts and training required to maintain your MAKINEX product in peak operating condition.

MAKINEX warrants each new Forced Action Mixer to be free from defects in material and workmanship under normal domestic and industrial use and service for the period specified below, conditional to the limitations and exclusions printed on this page. This warranty applies only to new MAKINEX products distributed by us and by our authorised MAKINEX dealers.

#### WARRANTY: (Ex-factory/ Reseller premise)

- 1 year warranty on the motor.
- 1 year warranty on the electrical box.
- 1 Year warranty on the Forced Action Mixer product

Note: Maintenance is not warranty. Excludes service and consumables required at scheduled maintenance intervals)

### WARRANTY EXCLUSIONS

This warranty does not cover the following repairs and equipment:

### **NORMAL WEAR**

This warranty does not cover repair when normal use has exhausted the life of a part or the equipment.

# **INSTALLATION, USE, AND MAINTENANCE**

This warranty will not apply to parts and/or labour if this Forced Action Mixer is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond its limits, modified, installed improperly or connected incorrectly.

#### OTHER EXCLUSIONS

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems cause by parts that are not original MAKINEX parts.
- Maintenance service costs
- Freight costs

#### OWNER'S RESPONSIBILITY UNDER LIMITED WARRANTY:

Strict adherence to the maintenance checks and with **proof of scheduled maintenance history** is required by an authorised agent or qualified mechanic. It is the consumer's responsibility to deliver the machine in question to our service premises or to the premises of our appointed agent at the consumer's expense for repair as applicable. Maintenance services are not covered under warranty.

#### Claim Procedure:

- Contact MAKINEX by phone or email informing us of your machines problem or defect.
- Once the extent of the claim has been assessed, we retain the right to compensate the consumer for such defect, or repair (parts & labour), or replace the machine under warranty.
- All warranties will be carried out by MAKINEX authorised staff or appointed agents at a premise to be determined by the Manufacturer.
- Transportation charges on product submitted for repair under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.
- Warranty repair will only be carried out by our representatives and not via client's choice of repairer. We will not accept back charges for any work not carried out by our representatives or accept any charges due to equipment being un-operational for any reason even during its warranty period.

# **CONTACT INFORMATION**

For sales, service, warranty, and parts for all MAKINEX products; please refer below.

	SALES, SERVICE, SPARE PARTS & WARRANTY
	SALES
AUSTRALIA	<b>TEL</b> 1300 795 953 or +61 2 9460 8071 <b>WEB</b> www.makinex.com.au
	SERVICE, SPARE PARTS & WARRANTY
	EMAIL service@makinex.com.au
	SALES
USA	<b>TEL</b> +1 855-625-4639 <b>WEB</b> <u>www.makinex.com</u>
	SERVICE, SPARE PARTS & WARRANTY
	EMAIL <u>service@makinex.com</u>
	SALES
UK	TEL +44 161 339 2223
	EMAIL sales@multiquip.co.uk

Or your nearest MAKINEX distributor

We have very knowledgeable, experienced staff to assist you with help and advice.



		PRODUCT NAME	PRODUCT NAME: FORCED ACTION MIXER - 120			4	Assessment Carried Out By:	d Out By:		Hayden El	Hayden Ellis, Andy Leung		
	-	MANUFACTURER: MAKINEX	B: MAKINEX			0	Document Revision Number:	Number:			A		
	OPERATC	OR COMPETENCY	OPERATOR COMPETENCY: PLANT LICENCE NOT REQUIRED				Date	Date Created:					
υ N	TYPE ! NA	TYPE / NATURE OF RISK or HAZARD	с от НАZARD		SEVERITY	OC	OCCURENCE	FREQUENCY	NCY	NUMBER OF PERSON	ISON RISK PRIORITY NUMBER		RECOMMENDED ACTIONS
		11	MOVING PART - Lid pinches on finger during closing	0.1	Scratch or Bruise	2	Possible	-	Monthly 1	1-2 Persons	0.2		JSE HANDLE TO CLOSE LID
		12	MDVING PART - Lid is not closed and paddles is rotating	9	Loss of one limb-eye-hearing	-	Highly Unlikely	0.5 A	Annually 1	1-2 Persons	8		ENSURE TRIGGER SAFETY SWITCH IS FUNCTIONAL PRIOR TO USE
		13	MOVING PART - Lid is not seoured during lifting of unit	2	Break of minor bone or minor illness	2	Possible	0.5 A	Annually 1	1-2 Persons	2		SECURE LID USING LATCH BEFORE LIFTING UNIT
		1.4	MOVING PART - Sticking a finger through the mesh of lid whilst paddle is rotating	2	Break of minor bone or minor illness	2	Even Chance	2.5	Daily 1	1-2 Persons	25		DO NOT STICK FINGER TO LOCATIONS WHERE PARTS ARE MOVING
1.0	MECHANI CAL	1,5	MOVING PART - Lid closes down when not secured in the open position	2	Break of minor bone or minor illness	2	Possible	-	Monthly 1	1-2 Persons	サ		OPEN LID UNTIL THE PLUNGER CLICKS INTO PLACE
		1,6	MOVING PART - Sticking a finger through the Assy Spout Guard whilst paddles is moving	2	Break of minor bone or minor illness	2	Possible	-	Monthly 1	1-2 Persons	학		DO NOT STICK FINGER TO LOCATIONS WHERE PARTS ARE MOVING
		1.7	MOVING PART - Sticking a finger through the Spout without Assy Spout Guard installed whilst paddles is moving	4	Break of major bone or major illness	2	Possible	0.5 A	Annually 1	1-2 Persons	학		DO NOT STICK FINGER TO LOCATIONS WHERE PARTS ARE MOVING
		1.8	MOVING PART - Spout Gate edges is jammed and is uncomfortable to use while applying force	0.5	Laceration or mild ill-effect	8	Probable	2.5	Daily 1	1-2 Persons	10		WEAR SAFETY PPE (GLOVES)
		1.9	HEAT - Touching the motor after running unit for long periods	0.5	Laceration or mild ill-effect	2	Possible	V 21	Weekly 1	1-2 Persons	1.5		WEAR SAFETY PPE (GLOVES)
	ELECTRIC	21	ELECTROCUTION - Shearing of power cable	15	Fatality	-	Highly Unlikely	0.5 A	Annually 1	1-2 Persons	2.5	_	CHECK POWER CABLE PRIOR TO USE, IF DAMAGED. REPLACE POWER CABLE
	ΑΓ	2.2	ELECTROCUTION - Using damaged product	15	Fatality	1	Highly Unlikely	0.5 A	Annually 2	3-7 Persons	15		CHECK IF PRUDUCT IS DAMAGED PRIOR TO USE, IF DAMAGED, DO NOT USE AND ORGANISE PRODUCT TO BE BEPAIBED IMMEDIATELY
		3.1	NOISE - Excessive noise due to operation of motor	9	Loss of one limb-eye-hearing	8	Probable	و 5	Constanti 4	8-15 Persons	096 s		WEAR SAFETY PPE (EAR MUFFS)
		3.2	FUMES - Toxic dust from pouring in material	15	Fatality	10	Likely	و د	Constantl 4	8-15 Persons	3000	,	WEAR SAFETY PPE (DUST MASK) AND ATTACH VACUUM TO VAC PORT
	NORMAL	3.3	FUMES - Toxic dust from mixing material in unit	15	Fatality	10	Likely	5 9	Constantl 4	8-15 Persons	3000		WEAR SAFETY PPE (DUST MASK) AND ATTACH VACUUM TO VAC PORT
}	2	3.4	INJURY - Tripping over unit	0.5	Laceration or mild ill-effect	2	Possible	0.5 A	Annually 2	3-7 Persons	1		ENSURE UNIT IS POSITIONED OUT OF PATH OR BE AWARE OF UNIT AT ALL TIMES
		3.5	INJURY - Tripping over power cord	0.5	Laceration or mild ill-effect	2	Possible	-	Monthly 2	3-7 Persons	2	_	ENSURE POWER CORD IS POSITIONED OUT OF PATH OR BE AWARE OF POWER CORD AT ALL TIMES
		3.6	INJURY - Awkward handling when lifting the unit manually	4	Break of major bone or major illness	1.5	Unlikely	2.5	Daily 2	3-7 Persons	30		ENSURE TVO PEOPLE LIFT WHERE APPLICABLE, OR USE LIFTING MACHINERY FOR ASSISTANCE

