

# MIXING STATION MS-100



**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 **MS-100** Mixing Station. 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. If there are any questions regarding operating or servicing of this machine, please contact MAKINEX.

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Any type of reproduction or distribution not authorised by 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 inquiries.

| MAKINEX SUPPORT                    |
|------------------------------------|
| Refer to contact details on pg. 12 |
| MODEL NO.                          |
| MS-100                             |
| 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 situation that **may** cause injury or damage to the machine if the user does not follow the instructions.



WARNING – indicates a situation that **may** cause injury or death if the user does not follow the instructions correctly.



DANGER – indicates a situation that **will** cause injury or death if the user does not follow the instructions as written.



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

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

Throughout this document there are several safety warnings. The user should read through this complete document before using the **MS-100**.



Ensure you read all information contained in this manual before using the **MS-100**.



Ensure you read the User Manual and safety instructions for the **MS-100** and other components that are part of this unit. See Appendix for more information.



Always wear the recommended personal protective equipment (PPE).



Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

#### **SAFETY DECALS**

There is a safety and information panel provided on the Clamp Arm (see images below) of the **MS-100** to alert the user of potential safety risks/hazards. Please read and adhere to all instructions on the Unit.



It is forbidden to remove any safety or instructional stickers or panels from the **MS-100**.



Read all safety and instructional stickers displayed on each component of the **MS-100**.



Mixing Station MS-100



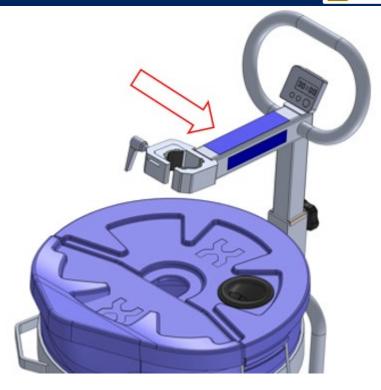






- Wear appropriate personal protective equipment
- Use caution when changing attachments
- Ensure stirrer is switched off before connecting or disconnecting from power supply
- Use a dedicated mains power supply with extension lead not exceeding 10m
  - Never place hands in bucket while the stirrer is operating





#### PRODUCT DESCRIPTION AND SPECIFICATION

**MS-100** is the ultimate mixing station for all self-levelling cement and compounds, producing a perfect mix every time. Designed by contractors for contractors it provides efficient hands-free mixing and fast precision pouring of materials saving time and effort on jobs.

A **MS-100** mixing station can mix up to 80kg (176lbs) in 3 minutes, which can equate to 1 Tonne per hour. **MS-100** is ultra-lightweight for easy transportation and the ergonomic design with easy-tilt operation provides control and speed for precision pouring.

The **MS-100** has Makinex Electric Mixer installed. The Makinex Electric Mixer is fully detachable from the MS-100. The Makinex Electric Mixer can be sold separately.

#### MS-100 Features:

- Hands-free mixing
- Built-in timer
- 4-wheel mobility
- Light and durable aluminium trolley 18kg
- Large pivoting bucket
- Dust and splash reduction cover
- Top section is detachable to minimise size during transport
- Locking castor wheel
- Trolley can be used to transport product and tools on work sites
- Vacuum port supplied to allow attachment of a vacuum to eliminate dust

| DIMENSIONS:                          |                               |
|--------------------------------------|-------------------------------|
| HEIGHT HANDLE ATTACHED (Operating)   | 1070mm -1300mm (42-51 inches) |
| HEIGHT HANDLE DETACHED (Transport)   | 780mm (31 inches)             |
| OVERALL WIDTH                        | 540mm (21 inches)             |
| OVERALL LENGTH                       | 626mm (25 inches)             |
| LENGTH OF HANDLE ADJUSTMENT          | 250mm (10 inches)             |
| WEIGHT:                              |                               |
| WEIGHT (WITHOUT MIXER)               | 18kg (40lbs)                  |
| WEIGHT (WITH MAKINEX ELECTRIC MIXER) | 26kg (57lbs)                  |

#### INSTRUCTIONS FOR USE



**NEVER** operate the **MS-100** without wearing the appropriate personal protective equipment (PPE) including appropriate footwear. Assess the surrounding area for hazards.



**ALWAYS** seek appropriate First Aid if Injury, Poisoning or Irritation occurs due to contact with Materials and Substances.



**ALWAYS** ensure that the work place is well ventilated.

#### STEP 1 - FITTING A STIRRER/ MIXER TO THE MS-100

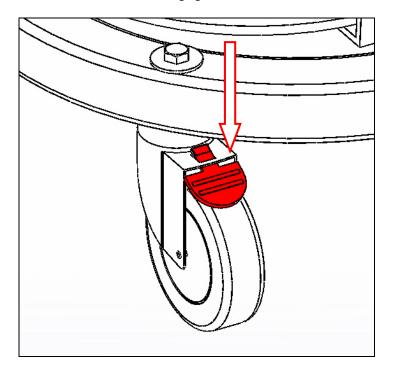


Ensure the Mixer is disconnected from mains power before Attaching or Removing it to/from the **MS-100** frame.



**NEVER** place hand under 'Slider Clamp' or 'Clamp Arm' when adjusting the height.

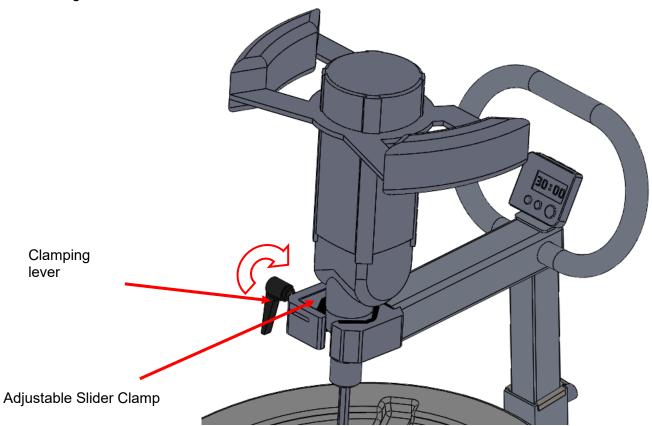
- 1. Refer to the Appendix for exploded assembly diagram.
- 2. Check that the 'Castor Brake' has been engaged.



3. Attach MS-100 'Clamp Arm' into the 'Slide Arm Collar' of the **MS-100** Frame; tighten 'Collar Latch' in place.



4. When fitting a mixer, make sure the 'Slider Clamp' opened, fit it through the gap from the front end and then position the collar part of the mixer between the Slider Clamp and tighten.



NOTE: Always grab the mixer by the handles and make sure the mixer is securely tightened, but do not over-tighten!

When fitting the **Makinex Electric Mixer**, ensure the <u>Electrical Cord</u> is facing to back of the MS-100.



#### STEP 2 - USING THE MS-100



**NEVER** place hands into the Bucket whilst Mixer is Mixing. **ALWAYS** disconnect Mixer from mains power before placing ha

**ALWAYS** disconnect Mixer from mains power before placing hands into the Bucket.



**ALWAYS** ensure the Mixer is switched OFF before plugging it in. **ALWAYS** wind-up the Power Cord before moving the **MS-100**.

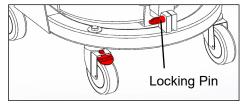
**ALWAYS** be aware of the Power/Extension Cord position when working around the **MS-100**™.



Maximum SAFE Load: 60-80kg (132-176lbs) of wet levelling compound. **DO NOT EXCEED** 80kg (176lbs)

**ALWAYS** use correct lifting technique when loading materials.

- 1. Ensure Makinex Electric Mixer is firmly secured in the 'Slider Clamp'.
- 2. Attach Lid to Bucket.
- 3. Make sure the 'Locking Pin' is engaged (i.e., locked to prevent the bucket from pivoting) at the base of the Bucket and that the Castor Wheel Brake has been applied.



4. Attach a vacuum hose through the 'Vacuum Port'.



- 5. Pour in correct amount of water for desired mix quality (refer to Levelling Compound manufacturer's recommendations).
- 6. Make sure Makinex Electric Mixer is switched to low-speed gear (1st Gear).
- 7. Plug in Makinex Electric Mixer to Mains Power.
- 8. Press Trigger to turn 'ON' mixer and lock in Trigger.
- 9. Start adding Bags of Levelling Compound one at a time whilst using the section lid to encapsulate the dust in the bucket.
- 10. Leave Makinex Electric Mixer on low-speed gear (1st Gear).
- 11. After final bag of Levelling Compound has been added, switch Makinex Electric Mixer to high-speed gear (2<sup>nd</sup> Gear).

NOTE: After the final bag of Levelling Compound has been added, the whole mixing operation should take approximately 2 minutes.

- 12. During mixing, wait for 30 seconds as the compound is being mixed; turn 'OFF' mixer temporarily and scrape off any excess powder that has gathered around the top of the bucket.
- 13. Switch mixer back 'ON' and return to Maximum Power until Levelling Compound is mixed to a lump-free consistency.
- 14. Once equal consistency has been achieved, turn off the Makinex Electric Mixer.
- 15. Unplug Makinex Electric Mixer from Power Supply; wind-up the Power Cord on the **MS-100** Handle.



#### STEP 3 – POURING AND PLACING LEVELLING COMPOUND



**ALWAYS** check that power cord is secured around the **MS-100** handle before pivoting the bucket.



**NEVER** place hand near the 'Pivot Pin' (Pivot Point) when rotating the bucket.



**NEVER** move or operate the fully loaded **MS-100** over an unstable surface.



**ALWAYS** protect open drains nearby from spillages of compound

- 1. Check the 'Locking Pin' is engaged (i.e., locked to prevent the bucket from pivoting) at the base of the bucket.
- 2. Disengage castor wheel brake.
- 3. Wheel the **MS-100** to the desired area (use caution when moving the loaded bucket).
- 4. Disengage (unlock) 'Locking Pin' at the base of the bucket.
- 5. Using a controlled motion (use the '**MS-100** handle and pouring Handle) pour mixed Levelling Compound where required.

**NOTE:** With two **MS-100** Portable Mixing Stations, another mix could be completed using the same Mixer while one is being poured.

#### STEP 4 - CLEANING THE MS-100



ALWAYS use two people when loading and unloading the MS-100.

- It is very important to clean the equipment after use. Use water or a high-pressure hose to clean all Levelling Compound from the MS-100 Frame, Wheels, Bucket and Mixer paddle after use.
- 2. Extra attention should be focused on cleaning the Wheels.
- 3. Wheels should be oiled / greased regularly.
- 4. For maintenance on Makinex Electric Mixer please refer to the Makinex Electric Mixer manual.

#### LIMITED WARRANTY

To take advantage of the MAKINEX limited warranty, you must have maintenance performed by an authorised MAKINEX dealer or MAKINEX service technician. You are free to have your MAKINEX product serviced by any suitably qualified persons 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.

MAKINEX warrants each new 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 mixer distributed by us and by our authorised MAKINEX dealers.

Under the limited warranty and at MAKINEX's discretion, upon evaluation, inspection and testing by a MAKINEX dealer or a MAKINEX service technician, MAKINEX will repair and replace of defective part(s).

AUSTRALIA: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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

MAKINEX warrants to the original purchaser:

- MAKINEX provides a Limited One Year Warranty that applies to MS-100 Mixing Station only (this excludes the Stirrer/mixer and any other attachments and consumables).
- All wheels must be thoroughly cleaned after each use, failure to do so will void warranty.
- Warranty only applies to the original purchaser and is not transferable.

#### WARRANTY EXCLUSIONS

- Warranty does not cover wear and tear, breakage, misuse or theft.
- Warranty does not cover consumables (e.g., bucket and lid, wheels) and attachments (Mixers/Stirrer)
- Warranty will not apply to parts and/or labour if the Mixing Station is deemed to be misused, neglected, installed improperly or set up incorrectly.
- · Cosmetic defects such as decals and coating.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original MAKINEX parts.
- Expedited freight costs.

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

Strict adherence to the maintenance checks and schedule with proof of scheduled maintenance service 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 replacement or 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.
- It is the responsibility (and cost) of MAKINEX or our appointed agent to return the machine to be
  repaired or replaced under warranty to the consumer- this is valid for domestic territories only
  (e.g., machine purchased in USA will repaired/replaced under warranty and returned to the USA
  consumer. Machine purchased in Australia will be repaired/replaced under warranty and
  returned to the Australian consumer, machine purchased in Europe will be repaired/replaced
  under warranty and returned to the consumer of that specific European nation etc.)
- Warranty calls 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  |
|-----------|---|
|           | <u>SALES</u>  |
|           | <b>TEL</b> 1300 795 953 or +61 2 9460 8071  |
|           | WEB www.makinex.com.au  |
| AUSTRALIA | SERVICE, SPARE PARTS & WARRANTY   |
|           | SALES EMAIL <u>sales@makinex.com.au</u> SERVICE EMAIL <u>service@makinex.com.au</u> |
|           |   |
|           | <u>SALES</u>  |
|           | TEL +1 855-625-4639 WEB <u>www.makinex.com</u>                                      |
| USA       | SERVICE, SPARE PARTS & WARRANTY   |
|           | SALES EMAIL <u>sales@makinex.com</u> SERVICE EMAIL <u>service@makinex.com</u>       |
| UK        | WEB www.makinex.co.uk   |
| EUROPE    | WEB www.makinex.eu  |

### Or your nearest MAKINEX distributor

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



# **APPENDIX A - RISK ASSESSMENT**

|     | PRODUCT NAME:<br>MANUFACTURER:<br>OPERATOR |                               | MS-100 MIXING STATION MAKINEX PLANT LICENCE NOT REQUIRED   | PR       | PRODUCT RISK / HAZARD ASSESSMENT TABLE Assessment Carried Out By: JOSHUA THAI Document Revision Number: 003 Date Created: 14/8/2019 | / HAZZA<br>Carried<br>Evision<br>Date | HAZARD ASSES arried Out By: sion Number: Date Created: | SSMIENT TA<br>JOSHUA TH<br>003<br>14/8/2019 | SSMENT TABLE JOSHUA THAI 003 14/8/2019 |   |  |            |
|-----|--|-------------------------------|--|----------|---|---------------------------------------|--|---|--|---|--|------------|
| No: | COMPETEN                                   | $\exists \parallel \parallel$ | TYPE / NATURE OF RISK or HAZARD  |          | LIKELIHOOD  | CONS                                  | <b>⊣</b> ⊩   |   | RISK LEVEL                             |   | CONTROL ACTION   | <b>¬</b> Г |
| 1.0 | MECHANICAL                                 | 11                            | PINCH / CRUSH FINGERS BETWEEN THE<br>MIXER AND MIXING STATION FRAME<br>(FITTING MIXER TOOL TO MACHINE)                                   | m        | UNLIKELY  | 4<br>N                                | NEGLIGIBLE   | - 2   | MOI                                    |   | FOLLOW THE SAFETY PROCEDURES FOR FITMENT OF MIXING STATION.  |            |
|     |  | 1.2                           | PINCH / CRUSH FINGERS BETWEEN<br>FRAME AND BUCKET AT PIVOT POINT<br>(ROTATING BUCKET)  | m        | UNLIKELY  | m                                     | MINOR  | 4   | MEDIUM                                 |   | KEEP APPENDAGES AWAY FROM THE PINCH POINTS.<br>USE SAFETY GLOVES.  |            |
|     |  | 1.3                           | PINCH / CRUSH FINGERS PLACING HAND UNDER CLAMP ARM WHEN ADJUSTING HEIGHT OF THE MIXER  | 2        | LIKELY  | en                                    | MINOR  | m   | MEDIUM                                 |   | KEEP APPENDAGES AWAY FROM THE PINCH POINTS.<br>USE SAFETY GLOVES.  |            |
|     |  | 1.4                           | CRUSH FOOT / TOES DROPPING THE MIXER WHILE REMOVING FROM MIXING STATION  | e0<br>(D | UNLIKELY  | 4 NE                                  | NEGLIGIBLE   | 2   | NOT                                    |   | FOLLOW THE SAFETY PROCEDURES FOR REMOVAL OF MIXING STATION.<br>WEAR APPROPRIATE FOOTWEAR.                                |            |
|     |  | 1.5                           | CRUSH HAND / FINGERS CAUGHT IN<br>MIXER BLADE DURING OPERATION   | 4        | VERY<br>UNLIKELY  | 2                                     | MAJOR  | 4   | MEDIUM                                 |   | ENSURE NO PART OF BODY IS IN THE BUCKET DUING OPERATION.<br>USE SECTION LID TO COVER THE OPENING DURING OPERATION.       |            |
|     |  | 1.6                           | CRUSH HAND / FINGERS CAUGHT IN<br>MIXER BLADE WHILE PUTTING MIXER<br>TOOL IN AND OUT   | 4        | VERY  | 2                                     | MAJOR  | 4   | MEDIUM                                 |   | UNPLUG THE MIXER WHILE FITTING AND REMOVING MIXER TOOL FROM MIXING STATION   | -j         |
| 2.0 | 2.0 ELECTRICAL                             | 2.1                           | ELECTROCUTION DUE TO DAMAGED LEAD BY RUNNING OVER THE LEAD WITH THE MIXING STATION OR CATCHING ON FOREIGN OBJECT WHEN MOVING UNIT AROUND | 4        | VERY<br>UNLIKELY  | 1 F                                   | FATALITY   | m   | MEDIUM                                 | • | UNPLUG AND WIND THE CORD BEFORE MOVING MIXING STATION.   |            |
|     |  | 2.2                           | ELECTROCUTION BY DAMAGING LEAD AT PIVOT POINT CAUSING MACHINE TO BECOME 'LIVE' or LIVE WIRES TO BECOME EXPOSED                           | 3        | UNLIKELY  | 1 F                                   | FATALITY   | 2   | HIGH                                   | , | BE AWARE OF CORD POSITION WHEN PIVOTING MIXING STATION BUCKET.   |            |
| 3.0 | NOISE                                      | 3.1                           | LOSS OF HEARING DUE TO LONG TERM<br>USE  | 4        | VERY<br>UNLIKELY  | 2                                     | MAJOR  | 4   | MEDIUM                                 |   | ALWAYS WEAR HEARING PROTECTION AND/OR IN CLOSE VINCINTY OF THE MACHINE.  |            |
| 4.0 | MATERIALS AND<br>SUBSTANCES                | 4.1                           | IRRATATION / POISONING DUE TO<br>CONTACT WITH THE SKIN AND / OR EYES   | s 1      | VERY LIKELY   | 3                                     | MINOR  | 2   | HIGH                                   | , | USE RESPIRATORY PROTECTION AND WEAR GLOVES AND GLASSES.<br>USE SECTION LID TO COVER THE OPENING DURING OPERATION.        |            |
|     |  | 4.2                           | IRRATATION / POISONING DUE TO INHALATION OF MATERIALS AND SUBSTANCES   | 1        | VERY LIKELY   | es es                                 | MINOR  | 2   | HIGH                                   |   | USE RESPIRATORY PROTECTION.<br>USE THE VACUUM PORT ON THE LID.<br>USE SECTION LID TO COVER THE OPENING DURING OPERATION. |            |
|     |  | 4.3                           | IRRATATION / POISONING DUE TO INGESTION OF MATERIALS AND SUBSTANCES  | eo       | UNLIKELY  | m                                     | MINOR  | 4   | MEDIUM                                 | , | USE RESPIRATORY PROTECTION.<br>USE SECTION LID TO COVER THE OPENING DURING OPERATION.                                    |            |
| 5.0 | NORMAL<br>OPERATION                        | 5.1                           | INJURY / STRAIN DUE TO BENDING TO<br>PICK UP AND POUR LEVELLING<br>COMPOUND  | 4        | 4 VERY UNLIKELY   | m                                     | MINOR  | 2   | MOT                                    |   | FOLLOW SAFETY PROCEDURE FOR POURING LEVELLING COMPOUND.<br>STAFF TRAINING FOR CORRECT LIFTING AND POURING PROCEDURE.     |            |

|     |                 | 5.2 | 5.2 INJURY / STRAIN DUE TO LIFTING THE MACHINE - LOADING / UNLOADING  | 2  | LIKELY   | m | MINOR | en en | MEDIUM | - USE A HOIST OR TWO PEOPLE TO LIFT MACHINE.  |
|-----|-----------------|-----|---|----|----------|---|-------|-------|--------|---|
|     |                 | 5.3 | 5.3 INJURY / BRUISING DUE TO TRIPPING ON POWER / EXTENSION CHORD  | 2  | LIKELY   | n | MINOR | m     | MEDIUM | - BE AWARE OF POWER CORD AT ALL TIMES.<br>UNPLUG AND WIND THE CORD WHEN NOT IN USE.   |
| 6.0 | 6.0 ENVIRONMENT | 6.1 | CONTAMINATION OF DRAIN / WATER SOURCES DUE TO LEVELLING COMPOUND AND / OR OTHER CHEMICALS SPILLING INTO DRAIN OR WATER SOURCE | n  | UNLIKELY | e | MINOR | 4     | МЕБІИМ | - ALWAYS APPLY BRAKES WHEN STATIONARY AND THE INDEXING PLUNGER (LOCKING PIN) WHEN MOVING MIXING STATION. USE THE SECTION LID WHEN IN USE. |
|     |                 | 6.2 | DAMAGE TO PERSON / PROPERTYS DUE<br>TO BRAKE NOT BEING APPLIED<br>(RUNAWAY)   | es | UNLIKELY | က | MINOR | 4     | MEDIUM | - ALWAYS APPLY BRAKE AND INDEXING PLUNGER (LOCKING PIN) WHEN NOT IN USE.  |

