



USER GUIDE

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NOTES:

This User Guide is a comprehensive manual covering the operation and maintenance of the MBX BUCKER processing machine as of the date of publication. ETEROS TECHNOLOGIES reserves the right to make updates to the machine from time to time. In the event of an update, this User Guide will remain appropriate for the safe operation and maintenance of your unit. This User Guide, as well as any documentation supplied by component manufacturers, are to be considered the information package associated with this device. Every operator must read and understand the User Guide. The manual should be located within easy access for periodic review.

SAFETY

SAFETY INSTRUCTIONS

To ensure operator safety while in use, this device includes decaling, guarding, and other safety features. Operators are encouraged to use caution and best judgment when using equipment. Equipment should be serviced when required.

To avoid possible damage to the machine and risk of injury to the operator, consult with an ETEROS TECHNOLOGIES representative to answer any questions.

This document refers to the ETEROS TECHNOLOGIES product de-stemming machine as the MBX BUCKER. Since this machine has a rotary cutting unit, special safety precautions must be observed to reduce the risk of personal injury. Careless or improper use may cause serious or even fatal injury. Please read and understand these precautions thoroughly before using the machine.

All operators must read and understand this User Guide and be trained in safe operation and use of the MBX BUCKER. We recommend the owner of this equipment develop a standard operating procedure specific to each worksite to address any local hazards or other conditions not outlined in this User Guide. The MBX BUCKER must be inspected regularly for damage, component failure, and wear. Results of inspection activity should be documented.

ETEROS TECHNOLOGIES makes every effort to ensure the MBX BUCKER is compliant with all current safety standards. It is the responsibility of the owner to ensure all municipal, provincial, state, county, territorial, and federal codes, regulations and standards have been met in each working location.

Do not lend or rent your machine without providing the User Guide. A first-time operator should receive practical instruction before using the machine.

This machine is not to be used for any purpose other than those expressly stated in the User Guide, advertising literature, or other ETEROS TECHNOLOGIES written material pertaining to the MBX BUCKER.

Operators must be in good physical condition and mental health to operate this device. Under no circumstances should the device be operated by anyone under the influence of any substance, including drugs or alcohol, which might impair vision, dexterity, or judgment. Do not operate the MBX BUCKER when fatigued. Be alert. If tired while operating the device, take a break. Fatigue may result in loss of control. Working with any equipment can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating the device.

DISCLAIMER

ETEROS TECHNOLOGIES recognizes that the MBX BUCKER is a purpose-built machine for processing cannabis by licensed producers. Please check all municipal, provincial/state, and federal laws and regulations before using the MBX BUCKER. ETEROS TECHNOLOGIES does not promote or condone the use of processing equipment in any way that may be deemed illegal.

ETEROS TECHNOLOGIES recognizes that our equipment can be used for processing herbs, hops, flowers and many other products. It is not the responsibility of ETEROS TECHNOLOGIES to confirm alternative applications for our equipment.

WARNING LABELS



DANGER:

Indicates a hazardous situation that, if not avoided, will result in serious injury and / or death. This signal word is to be limited to the most extreme situations; typically for machine components that, for functional purposes, cannot be guarded.



WARNING:

Indicates a potentially hazardous situation that, if not avoided, could result in serious injury and / or death. It includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION:

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

SERVICE & REPAIRS

Repairs may only be carried out by Eteros Technologies or a designated authorized agent (service technician).

Should the need arise, please notify us:

ETEROS TECHNOLOGIES
26 Industrial Ave.
Carleton Place, Ontario, Canada
K7C 3T2
www.eteros.com

Improper interfacing, improper repair, or unauthorized modification could result in void warranty claims.

GENERAL SAFETY PRECAUTIONS

1. READ and become familiar with the entire User Guide. LEARN the equipment applications, limitations, and possible hazards.
2. KEEP GUARDS IN PLACE and in working order including the upper product hopper.
3. DO NOT USE THE DEVICE IN A DANGEROUS ENVIRONMENT or damp or wet locations. Never expose control panel directly to rain or water. Keep work area well illuminated.
4. DO NOT use the device in the presence of flammable liquids or gases.
5. KEEP WORK AREA CLEAN. Cluttered areas and workspaces invite accidents.
6. KEEP CHILDREN and BYSTANDERS AWAY from the device. Visitors should be kept at a safe distance from the work area.
7. DON'T FORCE THE EQUIPMENT. It will operate optimally and safely at the rate for which it was designed.
8. USE THE RIGHT TOOL. Don't force the device to do a job for which it was not designed.
9. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
10. WEAR A FACE MASK OR DUST MASK. Bucking operation may produce dust. If dust extraction is not considered, a dust mask should be worn.
11. POWER DOWN AND DISCONNECT EQUIPMENT before servicing and when changing accessories, such as screens, rotors, etc.
12. CHECK FOR DAMAGED PARTS PRIOR TO OPERATION. The equipment should be inspected prior to use to ensure proper operation in performing its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any damaged part including guards should be properly repaired or replaced.
13. ALWAYS OPERATE DEVICE IN A WELL-VENTILATED AREA. Dust generated from certain materials can be a health hazard. Use a dust collection system whenever possible.
14. ALWAYS WEAR EYE PROTECTION.

OPERATING CONDITIONS

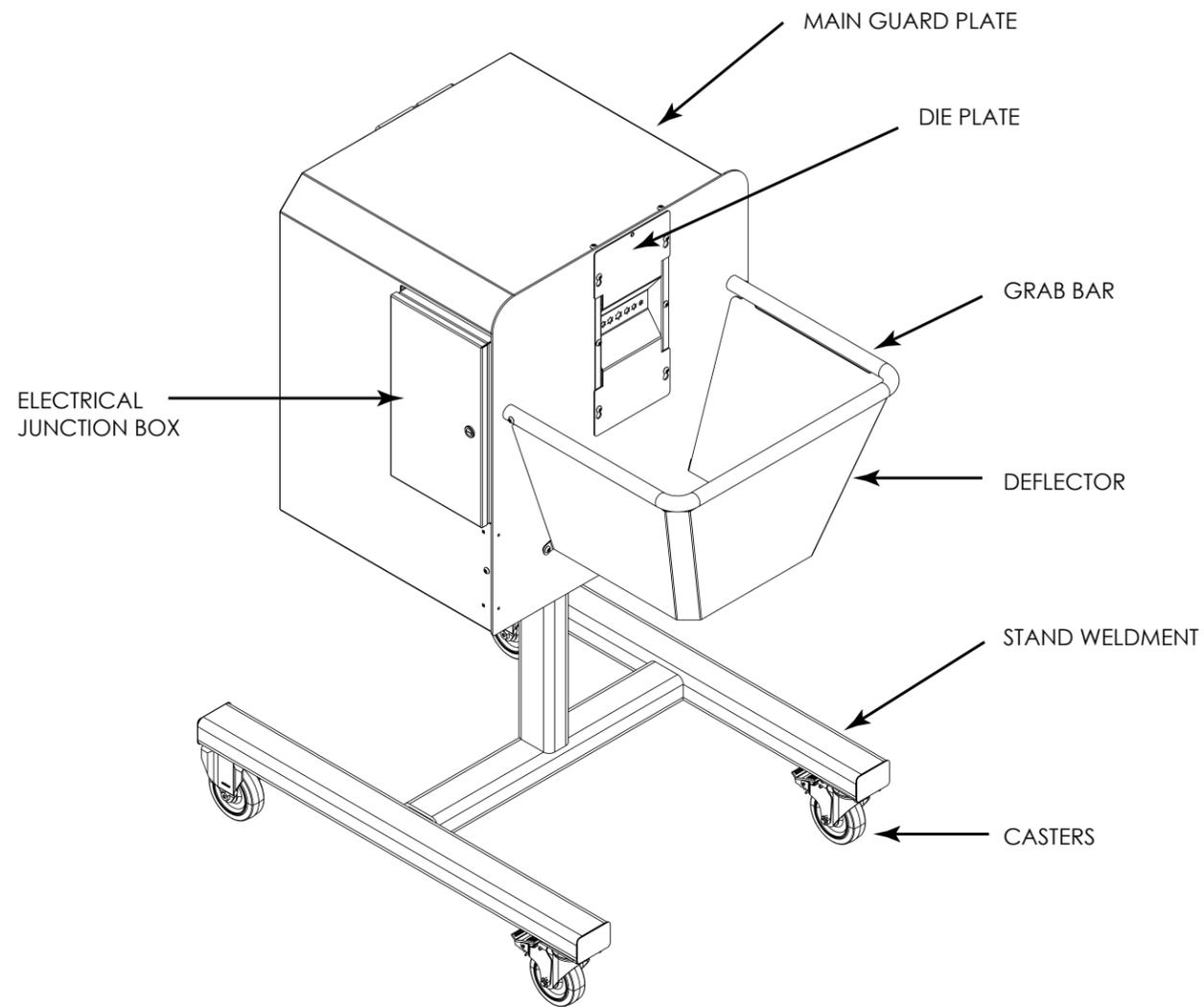
Location	Indoor
Altitude	0-2000 metres above sea level
Temperature (Ambient)	5°C - 40°C
Maximum Relative Humidity	80% at 31°C, decreasing linearly to 50% at 40°C
Voltage and Frequency	115V +/- 10% @ 60Hz - (NA) 230V +/- 5% @ 50Hz - (EU)
Current Draw	15 A (NA) 12A (EU)
Pollution Degree	2
Overvoltage Category	II

This machine should not be operated in conditions or orientations where accessing the emergency stop would be difficult or impossible. Always ensure that any operators have clear access to the power off and e-stop buttons.

If this equipment is used in conditions outside the specified operating conditions, Eteros Technologies cannot guarantee that the built-in safety functions of the Mobius MBX Bucker will function as intended.

INITIAL SETUP

GET TO KNOW YOUR MBX BUCKER



OPERATIONS

WHAT'S IN THE BOX

Your MBX BUCKER comes fully assembled, tested, and ready for operation. When unpacking the device, please ensure the following items are included:

- MBX BUCKER MACHINE
- USER GUIDE

OPERATION PREP

Please take the following steps to confirm the MBX BUCKER is ready to operate:

- Complete a thorough inspection of the equipment to ensure no damage occurred during shipment
- Confirm the power cord is in good condition
- Ensure the front die plate is installed and properly secured
- Ensure all guarding is properly installed and is in good working condition

CONTROL PANEL OVERVIEW

ON/OFF - Enables or disables power to the machine. In the vertical position, the machine is on. Turn counterclockwise to cut power to the machine.



E-STOP - Emergency stop button – stops all moving parts on the device.

START/CHIP – Energizes the electrical panel and starts the integrated chipper (if equipped). Note: This button will be illuminated when in operation.

FORWARD – Initiates forward roller direction for normal operation.

REVERSE - Initiates reverse roller direction for removing stems.

STOP – Stops infeed motor. Note: Under normal conditions, rollers do not need to be stopped when toggling between forward and reverse direction.

SPEED – Turn dial to adjust roller speed to desired rate.

OPERATION PREP

PRIOR TO DEVICE OPERATION, ENSURE ALL GUARDS AND THE FRONT DIE PLATE ARE IN PLACE AND PROPERLY SECURED

PRESS THE E-STOP BUTTON AT ANY TIME TO STOP ALL MOVING PARTS AND TURN OFF THE MACHINE

MACHINE START UP SEQUENCE

1. Ensure the front die plate is properly installed.
2. Ensure the e-stop is disengaged.
3. Press the start/chip button to turn on the machine and start the chipper (if equipped). When active, the start/chipper button will be illuminated.
4. Press the forward button to initiate forward roller direction (normal operating mode).
5. Turn speed dial to desired speed.
6. INSPECT WASTE CHUTE. A plugged waste chute can ultimately result in roller damage that is not covered under warranty. Ensure chipped stems pass through the waste chute properly.

CLEARING OBSTRUCTIONS: REVERSE ROLLER DIRECTION

In the event a stem becomes caught in the machine, roller direction can be reversed to release it. The operator **MUST** reverse roller direction to release caught stems as prolonged operation with an obstruction will result in roller damage that is not covered under warranty. To release a caught stem while the machine is in operation:

1. Press the reverse button. Roller direction will reverse releasing the caught stem. It is not necessary to stop roller direction prior to pressing the reverse button.
2. Allow the machine to eject the stem. Use caution.
3. Once the stem is fully released and in hand, press the forward button to return roller direction to forward for normal operation.
4. Inspect ejected stem to determine if it is suitable to feed into the machine. If so, insert stem. If not, dispose.

MACHINE STOP SEQUENCE

When the machine is in operation, press the stop button.

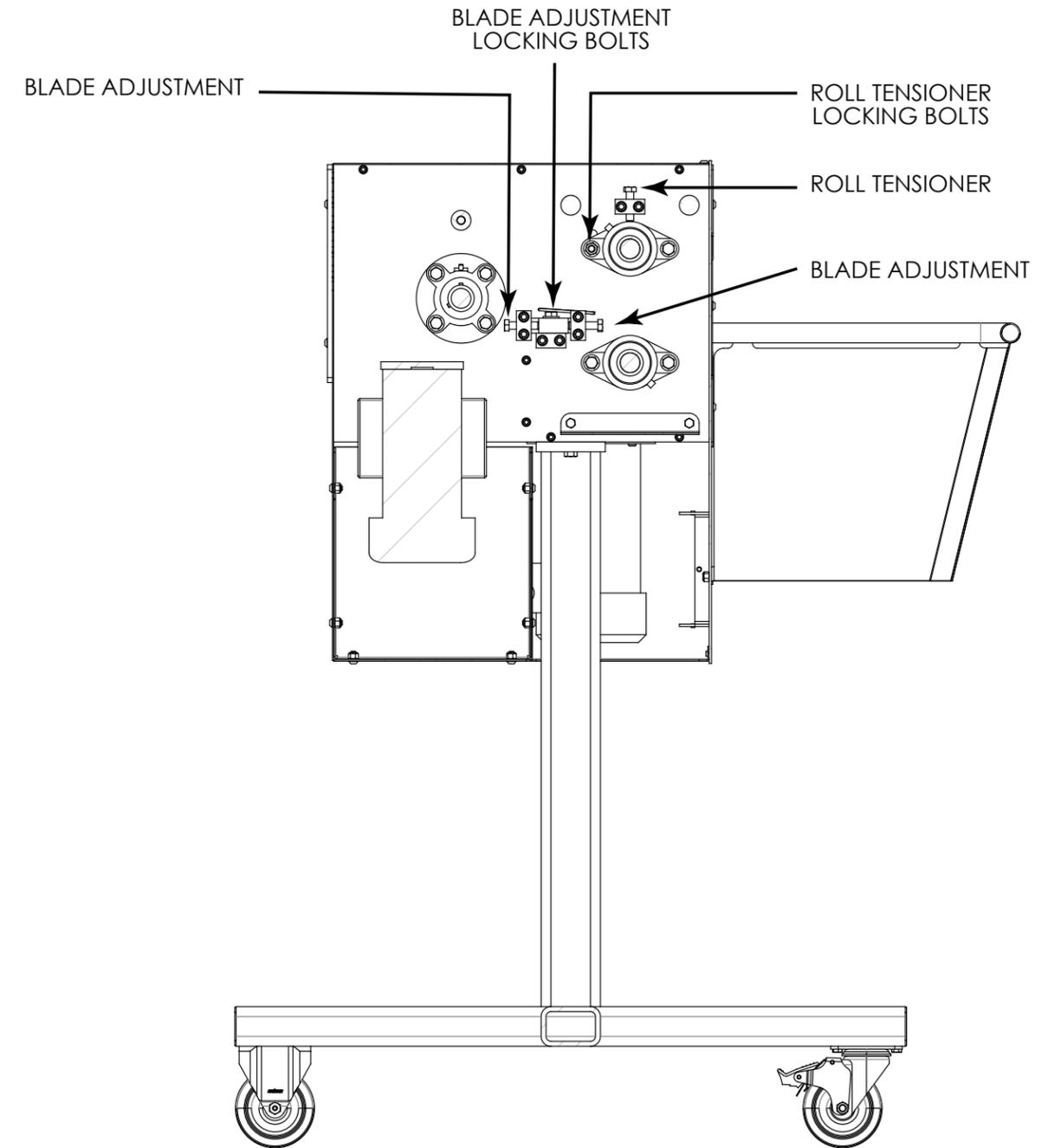
MACHINE SHUTDOWN SEQUENCE

1. Press the stop button to stop roller motion.
2. Press the e-stop button to de-energize the machine.

ENSURE THE MBX BUCKER IS LOCKED OUT BEFORE PERFORMING ANY SETUP, MAINTENANCE, OR CLEANING TASKS

SET-UP & ADJUSTMENTS

The MBX BUCKER typically requires no set-up or adjustments under normal operating conditions.



ROLLER TENSION ADJUSTMENT

If the rollers do not draw stems into the machine, or following a device rebuild or roller replacement, the rollers must be tensioned to ensure proper preload.

1. Ensure the machine is de-energized and all power sources are disconnected
2. Remove the main guard plate to access internal machinery
3. Loosen roller tensioner locking bolts
4. Loosely snug roller tensioner bolts and ensure rollers are level
5. Tighten roller tensioner bolts an additional four turns on each side
6. Tighten roller tensioner locking bolts
7. Replace all guards prior to testing operation

CHIPPER SET-UP

In the event of poor chipper performance (stems are not fully sheared or are bent but not cut) a chipper blade adjustment may be required

1. Ensure the machine is de-energized and all power sources are disconnected
2. Remove the rear guard
3. Loosen blade adjustment locking bolts
4. Using two blade adjustment bolts, adjust bed knife on each side until rotor knife and bed knife are as close as possible without interference
5. Tighten blade adjustment locking bolts
6. Replace all guards prior to testing operation

LIFTING & MOVING

The machine is easy to move and rolls on level surfaces. The machine includes four locking swivel casters that are installed at the factory. The machine is designed to be operated on smooth and level floors.

If lifting is required, the Mobius MBX Bucker must be lifted using a forklift on the lower structural frame between the casters. Ensure that the forks are fully spread to avoid overturning or flipping off the forks.

GENERAL

CLEANING

With the exception of the motor, gearbox and electrical enclosure, the MBX BUCKER can be washed, cleaned, and wiped down with normal detergents, degreasers, and disinfectants.

The front die plate and rear chipper cover may be removed to facilitate cleaning. The inside of the MBX BUCKER can be washed and wiped as needed.

The exterior of the MBX BUCKER should never be hosed or sprayed. Evidence of water near the motor, conduit, electrical panel, or gearbox could void the machine warranty.

STEP-BY-STEP INSTRUCTIONS

1. Shut down the machine, disconnect all power sources and lock out (if applicable). Ensure that the Bucker is always de-energized when working within.
2. Remove the front dieplate to expose the rolls.

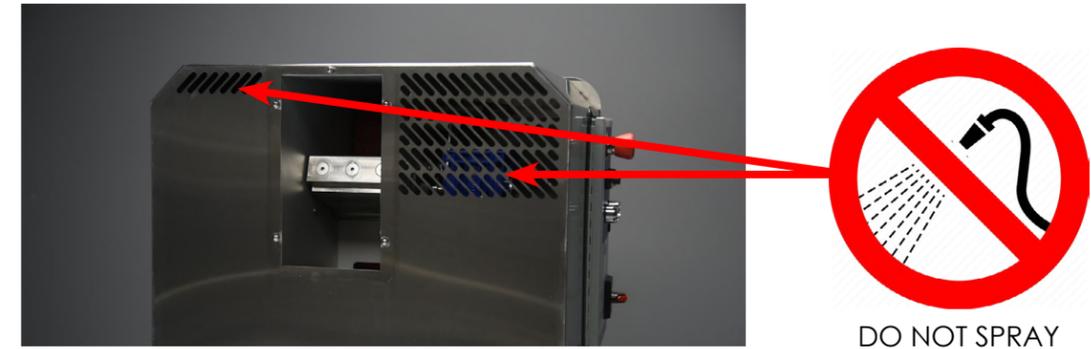


3. Remove the rear Lexan window to expose the chipper assembly.



4. Using hot water, spray or pressure wash the interior of the machine. Use caution not to pressure wash the rolls directly, as the high pressure jet may damage the rolls.

NOTE: The electrical panel and rear of the Bucker should never be hosed or sprayed directly. Use caution not to spray near the motors or into the vents in the rear of the Bucker.



5. Generously apply a detergent to the dieplate, Lexan window, rolls, chipper assembly, stock chute and all other internal components. We recommend Super Clean and Resin8 Xtra.
6. Allow the detergent to soak in up to 20 minutes and break down the resinous plant material. Brush any areas that are heavily soiled using a stiff plastic bristle brush.
7. Rinse the entire interior of the machine using hot water spray or pressure wash. Use caution not to pressure wash the rolls directly.
8. Inspect for any remaining plant material and repeat detergent, scrub and rinse as necessary.
9. Reinstall the front dieplate and rear lexan cover, power up the machine and operate rolls for a few seconds.
10. Repeat steps 1 - 8 to ensure no additional plant material is remaining.
11. Sanitize rolls or other internal components if desired using [Shyield](#) or ISO.
12. Wipe the exterior of the Bucker using a detergent to remove any plant material.
13. Sanitize the dieplate, Lexan cover and exterior components if desired using [Shyield](#) or ISO.
14. Complete one final inspection, then reinstall the dieplate and Lexan cover to prepare for use.

MAINTENANCE

The MBX BUCKER is largely maintenance-free.

HOURLY INSPECTION

We recommend that the front die plate be removed regularly to confirm stems are not building up inside the unit.

DAILY INSPECTION

We recommend removing the front die plate and rear cover daily to ensure all debris are removed from the inside of the machine.

WEEKLY INSPECTION

We recommend removing the front die plate and rear cover from the main machine to:

1. Ensure all debris are removed from the inside of the machine
2. Add 2-4 pumps of FDA-approved white lithium grease to each bearing.

This User Guide does not include instructions for machine repair. For your safety, repairs must be completed by ETEROS TECHNOLOGIES or an authorized agent (service technician).

Should repairs be required, please contact:

ETEROS TECHNOLOGIES

502-130 INDUSTRIAL AVE.

CARLETON PLACE, ONTARIO, CANADA

K7C 3T2

Improper interfacing, improper repair, or unauthorized modification could result in void warranty claims.

WARRANTY

For a period of one (1) year after equipment shipment, ETEROS TECHNOLOGIES ("Seller") warrants the MBX BUCKER shall be free from defects in material and workmanship.

In the event of an issue covered under warranty, the original owner/purchaser of the of the MBX BUCKER must contact ETEROS TECHNOLOGIES to file a claim. Prolonged operation of a damaged machine may cause additional damage and/or wear not covered by warranty.

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The seller understands the cost of downtime and will make every reasonable effort to process approved warranty claims and repairs as quickly as possible. In some instances, the owner/purchaser may need to ship the equipment to the Seller's manufacturing facility to complete the repairs. The repairs will come at no cost to the owner.

Rotor damage is very rare on a MBX BUCKER and is typically the result of rocks, hard metallic objects, or poor setup. Rotor damage resulting from hard objects entering the MBX BUCKER is not covered under warranty. In the event of rotor damage, please contact ETEROS TECHNOLOGIES for assessment. Repair and part replacements must be completed by ETEROS TECHNOLOGIES or an authorized agent. To avoid rotor damage, please take care to properly maintain the MBX BUCKER and do not let hard objects enter the device.

SPECIFICATIONS

Wet / Dry Capable	Yes
Construction	304 Stainless Steel and Delrin
Speed Adjustments	1 - 10
Number of Feed Holes	7
Max Hole Diameter	1/2"
Integrated Chipper	Yes
Stem Puller Motor	1/2 HP
Chipped Motor	3/4 HP
Number of Chipping Blades	2
Disassembly Tools	5/32 Allen Key
Fits Through a 32" Door	Yes
Dimensions: W x L x H	28" x 40" x 52"
Weight	275lbs
Warranty	1 year
Certifications	ESA Certifications
Location	Indoor
Altitude	0-2000 metres above sea level
Temperature (Ambient)	5°C - 40°C
Maximum Relative Humidity	80% at 31°C, decreasing linearly to 50% at 40°C
Voltage and Frequency	115V +/- 10% @ 60Hz - (NA) 230V +/- 5% @ 50Hz - (EU)
Current Draw	15 A (NA) 12A (EU)
Pollution Degree	2
Overvoltage Category	II

TROUBLESHOOTING

MBX BUCKER WILL NOT START

- ensure the machine is plugged in
- ensure the e-stop is disengaged (pulled out)
- ensure the start/chip button has been pressed and is illuminated
- ensure the chipper is not jammed or lodged

GREEN START/CHIP BUTTON IS NOT ILLUMINATED

- ensure the machine is plugged in
- ensure the e-stop is disengaged (pulled out)
- ensure the start/chip button has been pressed

MBX BUCKER BECOMES ABNORMALLY NOISY/ HEATING UP

- push the e-stop to de-energize the machine
- remove rear guard and front die plate to inspect the chipper to ensure it is not plugged (see hourly inspection pg 17)

MATERIAL COMES OUT OF THE CHIPPER UNDER- PROCESSED OR CHIPPER IS GETTING PLUGGING UP FREQUENTLY

- see chipper setup on pg 15

MBX BUCKER IS NOT PULLING STOCKS OR BUCKING PROPERLY

- see roller tension/setup on pg 15



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