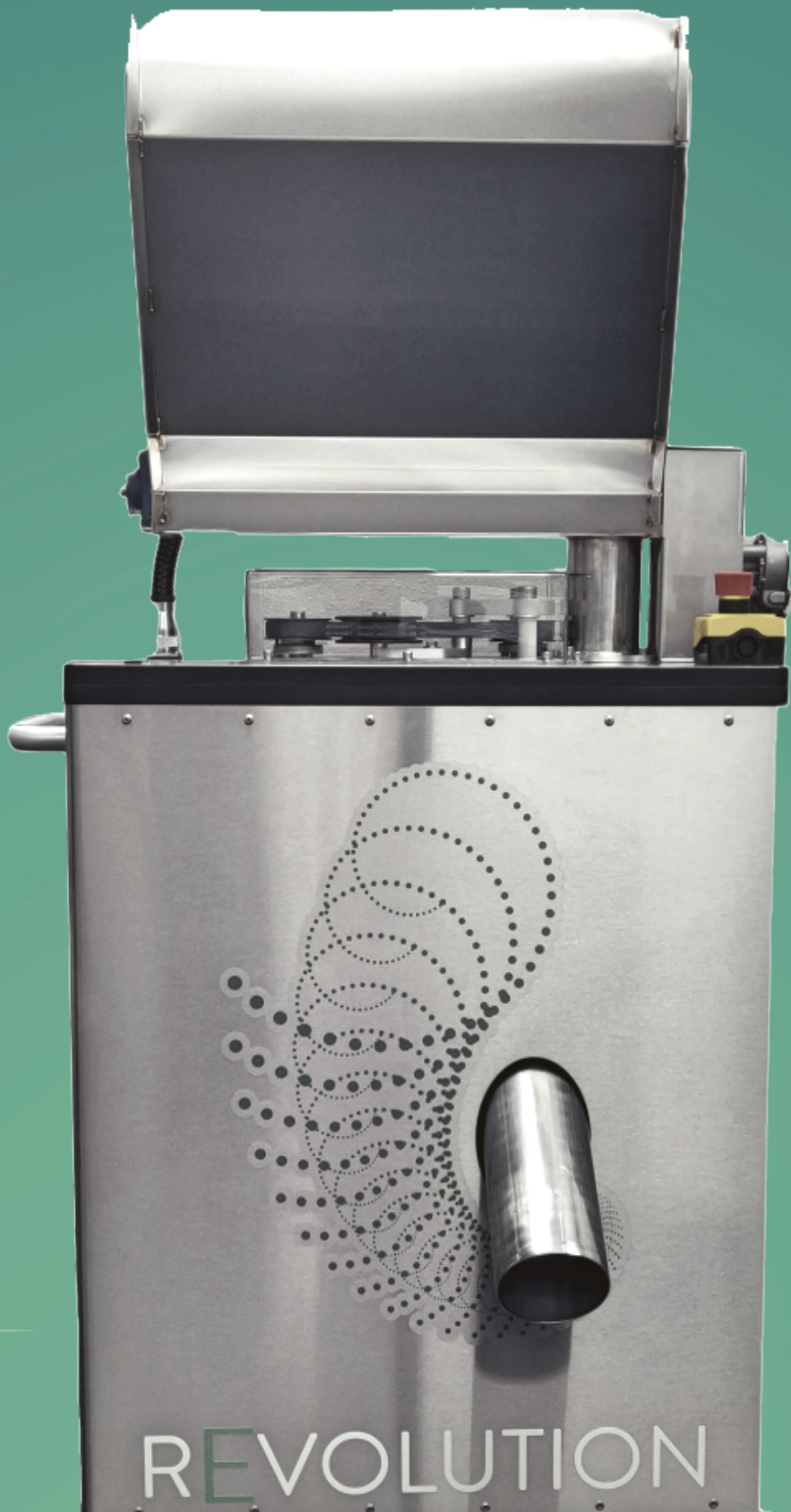


stm 

# REVOLUTION

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USER MANUAL



REVOLUTION

# REVOLUTION

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## USER MANUAL



Sesh Technologies Manufacturing, Inc.

3223 North Market Street, Spokane, WA 99207

Phone: (509) 204-3164 | Web: [www.stmcanna.com](http://www.stmcanna.com)

▶ View Training Videos at - [bit.ly/revolution-training](https://bit.ly/revolution-training)

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# COMPONENTS

▶ Revolution Grinder Components - [bit.ly/revolution-components](https://bit.ly/revolution-components)

## FRONT OF MACHINE



## BACK OF MACHINE



stm  **REVOLUTION™**  
**TECHNICAL SPECIFICATIONS**

<b>MATERIALS</b>	Encased in 100% Food-Grade Material SAE 304/316, Dent-Resistant Stainless Steel Handle & Heavy Duty Castor Wheels for Easy Mobility
<b>ASSEMBLY</b>	Designed, Manufactured, & Assembled in the USA
<b>POWER</b>	Standard 220V   30 Load Amps Single Phase   5-1/2 ft. Cord Length Requires L6-30 Plug Seek Certified Electrician for Installation Needs
<b>MOTOR</b>	3HP   UL Listed   Long Life Cycle
<b>WEIGHT &amp; DIMENSIONS</b>	Small Footprint Approx. 220 lbs 30" L x 65" H x 22-1/4" W
<b>HOPPER</b>	Holds 21 Liquid Gallons (Four 5-Gallon Buckets of Material)
<b>THROUGHPUT</b>	Up to 50 lbs +/- Hourly Up to 400 lbs +/- Daily Varies with Different Material Types
<b>DUAL-BLADE SYSTEM</b>	Custom-made Stainless Steel Serrated Blades Proprietary Angle for Optimized Cutting of Material



# REVOLUTION

## TECHNICAL SPECIFICATIONS

<b>PARTICLE SCREENS</b>	<p>Fine Particle Screen (food grade, stainless material)</p> <p>Coarse Particle Screen (food grade, stainless material)</p>
<b>CHUTE &amp; CHAMBER</b>	<p>Chute with Vibrating Agitator (non-stick, food-grade)</p> <p>Blade Area Chamber (food-grade)</p>
<b>SOFTWARE &amp; UPGRADES</b>	<p>Revolution OS V1.1</p> <p>Upgradable System Software Included for Lifetime of the Machine</p>
<b>TOUCH SCREEN</b>	<p>Manual and Automatic Operation</p> <p>Ergonomic 4" Resistive Touch Control Panel</p> <p>Low, Med, High Speed   Start/Stop</p> <p>Auger On/Off Time Delay</p> <p>Pop-Up Error Messages</p> <p>Standard Service Data for Clogs or E-Stop Conditions</p>
<b>COMPLIANCE</b>	<p>OSHA Compliant</p>
<b>CLEANING</b>	<p>Sliding Back Door for Easy Access</p> <p>Quick Release Bolts   Dishwasher Friendly</p>
<b>LIFE CYCLE &amp; WARRANTY</b>	<p>1-Year Parts and Labor Warranty</p> <p>Motor 10-Year Life Cycle</p>
<b>SAFETY FEATURES</b>	<p>Machine is Fully Enclosed</p> <p>2 Quick Access Emergency Stop Buttons</p> <p>Lock-Out Tag-Out Power Switch</p> <p>Multiple Automatic Internal Safety Limit Switches</p>

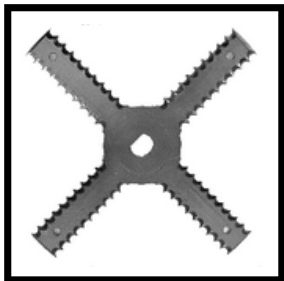
# GETTING STARTED

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## **UNPACKING YOUR MACHINE**

Carefully unpack your machine and inspect it to ensure it has not been damaged during shipping. Make sure all the correct parts are included and match your invoice. Please contact us if you have missing or damaged items.

- ✔ Revolution Grinder Machine
- ✔ Includes 1 - Screen for 3/16" (4.76mm) particles (pre-installed)
- ✔ Includes 1 - Screen for 5/32" (3.96mm) particles
- ✔ Includes 1 - Set of Dual Stainless Steel Blades (pre-installed)
- ✔ Optional at Additional Cost – extra screens and blade sets



4 Arm Blade



Floater Blade

Stainless Steel Dual Blade  
(both blades are pre-  
installed in your machine)



Particle Screens (the pre-roll  
screen is pre-installed on  
your machine)

Additional particle screens and blade sets are available in the [STM Store](#).

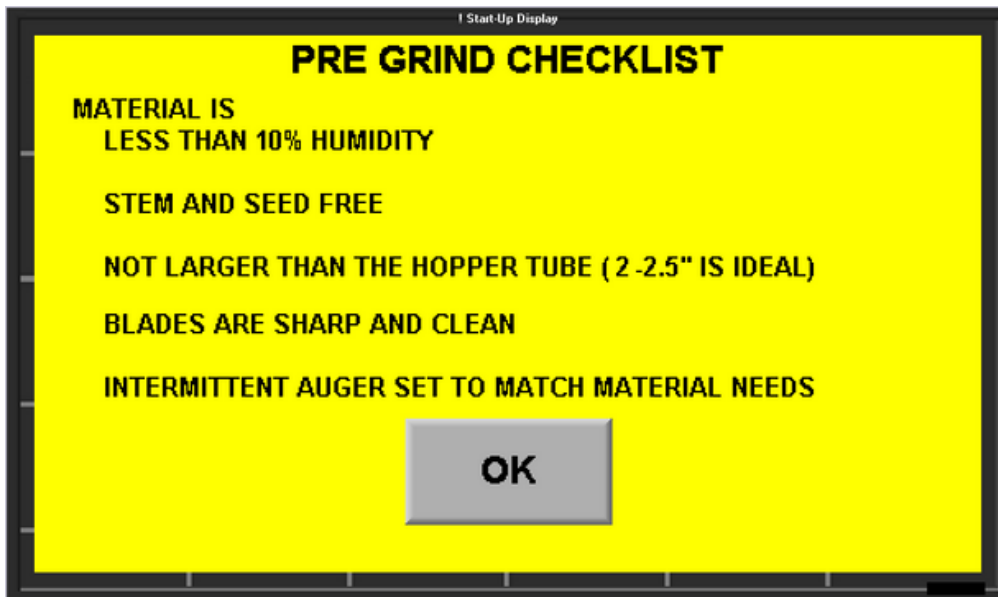
Particle screens available:

- 3/16" (4.76 mm)
- 5/32" (3.96 mm)

# BEST PRACTICES & TIPS

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▶ Video: Pre-Grind Preparation - [bit.ly/pre-grind-prep](https://bit.ly/pre-grind-prep)



**ALWAYS TURN OFF AND UNPLUG MACHINE BEFORE CLEANING OR SERVICING.**

**The Revolution grinder can handle up to 10% moisture.**

Having material inspected prior to grind is a must.

If product bends without a snap - **TOO MOIST!**

If product snaps and kief is seen falling after the snap - **TOO DRY!**

Optimal product will bend, then snap.

Optimal moisture is between 7-10%

**Always start motor on highest speed setting speed**

Auger on 3-seconds run time and 3-seconds off time to prevent clogging. If material is too dry, auger can run for longer, but can remain at 3-seconds of run time.



# POWERING ON THE REVOLUTION

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- STEP 1:** Insert three-prong L6-30 plug into a standard 220v/30 amp single-phase wall outlet.
- STEP 2:** Turn the red lock out power switch to the vertical position on the right side of machine for ON. Turn horizontal for OFF.
- STEP 3:** If it does not turn on, check power connection. If "Emergency Stop" is displayed on the screen, check emergency procedures step #3 and #4 below.

# EMERGENCY PROCEDURES

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- STEP 1:** If there is a sudden emergency or need to shut off the machine quickly, press either of the two E-STOP buttons. One is located on top of plate on the rear side of the machine. The other is located just to the left of the touch screen.
- STEP 2:** "Emergency Stop" will display on the touch screen.  
**NOTE: the machine will not operate in this mode.**  
To clear the "Emergency Stop", pull the red E-STOP near the touch screen ensuring the yellow ring under the bottom is exposed.
- STEP 3:** If "Emergency Stop" message is still displayed and both E-STOP buttons are not pressed, it is most likely a trigger of the limit safety switch. (refer to page 12)
- STEP 4:** There are four safety switches located in the machine that will display the emergency stop as well. The screen will tell you which e-stop or limit switch is tripped.

**DO NOT ALTER LIMIT SWITCHES IN ANY WAY**

# TOUCH SCREEN OPERATION

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▶ Video: Revolution Touch Screen - [bit.ly/rev-touch-screen](https://bit.ly/rev-touch-screen)

## START / STOP

Press the START button to start the operation and STOP to stop the operation of the grinder.



## MOTOR SPEEDS

The Revolution has 3 speeds for operation. High, Medium, and Low, indicated by the largest to smallest icons on the touch screen:

HIGH: 100% of motor speed

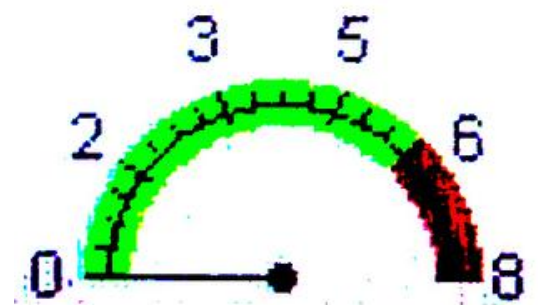
MEDIUM: 50% of full power

LOW: 10% of full power



## AMP METER

The amp meter is located in the lower right corner. When in higher amperage, the machine will read that and delay the auger. This allows for the blade chamber to clear before introducing more material. If the meter remains high, you may have a clog that needs clearing.



# AUGER SPEEDS

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The Revolution has one auger speed that comes pre-set into the machine. The auger comes pre-set with ON times and OFF times. This prevents the clogging of materials and overfeeding the blade. These times may be changed, but we do not recommend going below 3 seconds off or more than 15 seconds on.

# CHUTE, PARTICLE SCREEN & BLADE MAINTENANCE

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## **ALWAYS UNPLUG MACHINE PRIOR TO ANY MAINTENANCE!**

- ▶ Video: Changing Particle Screens - [bit.ly/particle-screens](https://bit.ly/particle-screens)
- ▶ Video: Removing & Reinstalling Chute - [bit.ly/removing-chute](https://bit.ly/removing-chute)

## **CHANGING PARTICLE SCREENS**

### **STEP 1: REMOVE BACK PANEL**

- Remove upper back panel by removing the four Allen head screws using a 3/16" Allen wrench.
- Slide the back door straight up to expose upper inside of the Revolution.
- **DO NOT REMOVE BOTTOM PANEL AS IT WILL VOID YOUR WARRANTY**

### **STEP 2: DROP THE CHUTE**

- Loosen the 4 quick-release Allen bolts in each corner of the inner chute by using a 5/16" Allen wrench.
- Swing the quick release tabs away from the chute and lower middle plate.
- To completely remove the chute, depress the plastic tab on the male end of the connector and remove it from the small internal motor that is attached to the chute.

### **STEP 3: CHANGING THE PARTICLE SCREEN**

- After chute has been lowered, loosen the 4 tabs with the 5/16" Allen.
- Swing the tabs away from the surface to allow the screen to drop.
- Replace screen and reverse steps above to secure screen.
- Use isopropyl alcohol to clean the inside of the chute, particle screen, and blade chamber. Do not scrape, this may cause damage.
- Reverse sections 1 and 2, ensuring all quick release tabs and bolts are secure.

# CHUTE, PARTICLE SCREEN & BLADE MAINTENANCE

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▶ Video: Changing the Blades - [bit.ly/changing-blades](https://bit.ly/changing-blades)  
Please watch our how-to video for this crucial step in maintaining your grinder.

## **CHANGING THE BLADES**

### **STEP 4: REPLACING THE BLADES**

- The 4-sided blade goes in the Revolution first followed by the 2-sided blade.
- The 4-sided blade will slide on a keyed arbor followed with the 2-sided blade that will bolt up to the arbor.
- Place a screwdriver in the top blade through the hole, into the throat of the hopper to tighten down the blade using a 5/16" Allen wrench.

### **STEP 5: PUTTING MACHINE BACK TOGETHER**

- Ensure the blades have been put back on and secured into place.
- Replace the screen.
- Replace the chute and plug back in the small internal motor that is attached to the chute (if removed)
- Slide the back panel in place and secure with the 4 screws.

**It's important to inspect blade chamber and chute every 30 min or continual run, and set scheduled cleanings daily**

**ALWAYS UNPLUG MACHINE PRIOR TO ANY MAINTENANCE.**  
**USE CUT-PROOF GLOVES WHEN CHANGING THE BLADES.**

# REASSEMBLY OF HOPPER

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**ALWAYS UNPLUG MACHINE PRIOR TO ANY MAINTENANCE.**

▶ Video: Removing & Reinstalling Auger - [bit.ly/removing-auger](https://bit.ly/removing-auger)

## **STEP 6: REASSEMBLY OF AUGER**

**Please refer to videos above for more in-depth guide**

- Place the bottom hopper base back in the hopper.
- Attach the short piece of flighting with the open end on the Hex rod.
- Put the long piece of flighting with the cut out onto the short piece of flighting.
- Slide the 3" piece of Hex Rod back into the flighting through the outside of the Hopper.
- Secure the 2 Allen set screws located on the bearing, opposite of the chain guard side (using an 1/8" Allen wrench)
- Replace the removable baffle above the throat leading into the grinder.
- Close the lid.
- Plug the Revolution back in (Revolution is clean and ready for the next use!)

**Ensure that the product is not too large going into the hopper. The "rule of thumb" is a good rule to follow. Meaning, nothing much larger than your thumb.**

**DO NOT OVERFILL HOPPER**

# TROUBLESHOOTING

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## **REVOLUTION WILL NOT POWER ON**

#1. Make sure lockout tag power button is on. It is located on the side of the machine.

#2. If this does not resolve the issue, check to make sure the E-stop button is not depressed (page 5). If so, you will see "Emergency Stop" displayed on the screen.

#3. If you still see "Emergency Stop" and both E-stop buttons are not depressed, make sure one or more of the safety limit switching has not been triggered. There are four areas which have a limit safety switch, which will prevent the machine from operating if triggered.

- Hopper Lid - Under Handle
  - Behind the Drop Down Chute - Back Left Corner
  - Slide Panel Door - Top Right Corner
  - Components Slide Panel Door - Top Right Corner
- #4. If you are still experiencing issues, please call Client Services at (509) 204-3164

## **CLOGGING ISSUES**

▶ Video: Changing Particle Screens [bit.ly/particle-screens](https://bit.ly/particle-screens)

- If machine gets clogged, stop machine and disassemble.

*Refer to the steps on page 9 for changing the particle screen*

- If still an issue, please call Client Services at (509) 204-3164.

# TERMS OF BUSINESS

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All STM systems carry a limited one-year warranty against defects in workmanship and/or materials.

## **Who is covered?**

Please note that results with STM processing equipment vary widely and depend on a myriad of factors, including but not limited to: correct grind size, age of material, quality of material, moisture content, strain, and temperature. Your material may behave differently. We take no responsibility for your results, only for the working functionality of our products. If you have any questions or concerns regarding this disclaimer, please do not hesitate to contact us.

## **What voids the warranty?**

- Abuse, misuse, improper installation and modifications.
- Custom applications.
- No proof of purchase at the time of warranty. Claimant must provide proof of purchase, warranty card, and a warranty authorization number (RMA) obtained from STM.
- Finishes such as plating or painted surfaces with discoloration or rust due to inclement weather conditions, exposure to salt, exposure to chemicals, or lack of maintenance by the customer are not covered.
- International grey-market product purchased through a dealer/distributor not authorized for your country will not be supported by this warranty.
- Electrical parts are not covered under warranty.

# TERMS OF BUSINESS

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## **Extent of Warranty**

Any STM system properly returned to STM will be repaired or replaced by STM. STM is not responsible for any other expense incurred by the customer under the terms of this limited warranty, nor is STM responsible for any damages either consequential, incidental, special, contingent or otherwise; or expenses or injury arising directly or indirectly from the use of the STM system purchased. Any system returned to STM must be sent at the customers expense along with the proof of purchase and warranty authorization (RMA). STM reserves the right to determine whether the terms of the warranty, set out above, have been properly followed. In the event that the terms are not followed this warranty is void.

STM is the sole determiner of abuse, misuse, installation errors and modifications - should any of these be found, this warranty is void. The duration of any and all implied warranties are limited to the duration of the express warranty. All incidental or consequential damages are hereby excluded. The warranty gives you specific legal rights and you may have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you. Warranty only applies to original owner of the machine - No warranty transfers.

For international customers, please contact your client services representatives regarding warranties.



# TERMS OF BUSINESS

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## **If You Have a Problem:**

If you have a problem, or are missing a part, please double-check this trouble shooting guide first:

1. Reference your instruction sheet and double-check all instructions
2. Always take time to examine problems in detail.
3. When all else fails, call our technical support line at (509) 204-3164:

The technical line is open 9:00am - 3:00pm, Monday through Friday, Pacific Time.

Please have the following information handy: Name of Company the purchase was made under, Date of Purchase, and Serial number.

## **Terms:**

All orders will be shipped COD (Cash on Delivery) unless other arrangements have been made. STM reserves the right to specify collection by certified check, money order, or company check. Personal checks are not accepted.

## **Shipping:**

All orders are FOB Spokane, Washington. Orders received will fall in line and be serviced accordingly where the shipment date may be sooner than originally quoted. We will ship by the most reasonable means based on the volume of the order, unless otherwise specified.

# TERMS OF BUSINESS

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## **Special Orders**

All special-order items must be paid in full before the order is placed. These items are non-returnable and no refund will be given. All special-order items will also take a longer period of time for the customer to receive, which will be quoted at the time of payment.

## **Liability**

The purchaser of any parts releases the manufacturer of those parts and STM from all liabilities pertaining to use of the parts. The purchaser recognizes that any alteration or modifications to any STM system may increase the risk of accident and/or injury and may also render the machine inoperable.

## **Returns**

No Refunds/Exchanges: We do not accept returns or exchanges unless the item purchased is defective. All items that we ship are insured; if an item arrives damaged from shipping, we will work closely with you to get your replacement parts as soon as possible. We may also request pictures or other identifying information to establish the damage that was caused by the shipping carrier. If you receive an item you believe is defective, please contact us with details of the product at (509) 204-3164 or email: [clientservices@stmcanna.com](mailto:clientservices@stmcanna.com).

# TERMS OF BUSINESS

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We may ask you for pictures, video, descriptions, and other identifying information to make a determination. If you are unable to provide adequate documentation requested, your return request will be denied. If your item is deemed defective, which is solely at STM's discretion, we will issue you an RMA # which you will need to place in and on the package. After receiving your RMA #, you may send the item to:

Sesh Technologies Manufacturing  
3223 North Market St.  
Spokane, WA 99207

Upon receipt of the returned product, we will fully examine it and notify you via e-mail, within a reasonable period of time, whether you are entitled to a replacement as a result of the defect. If you are entitled to a replacement, we will replace the product at no additional cost to you.

## **Claims**

Since ownership of product transfers at the FOB point, claims for damaged, lost, or short shipments must be made at the time of receipt.

## **Technical Questions**

See your local dealer or contact Technical Support directly at (509) 204-3164 or email to [clientservices@stmcanna.com](mailto:clientservices@stmcanna.com).

# NOTES

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