



OWNER'S MANUAL

Models MR-3 | MR-4 | MR-5 | MR-6

ENGINEERED AND MANUFACTURED IN THE USA

VibraWaste

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Rev. 1.8 — June 2026

NOTICE Read this manual before installing, operating, or servicing the VibraWaste Muckraker. Keep this manual with the machine for future reference.

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1. Introduction

The VibraWaste Muckraker is a high-capacity receiving station designed for waste haulers and dredging operators to unload liquid waste quickly while automatically separating trash and debris from the flow. The system screens out material larger than 3/16 inch and is capable of unloading at up to 400 gallons per minute.

The Muckraker improves receiving station efficiency by reducing dump times, eliminating hand raking, producing a better filtered liquid stream, and compressing removed trash and debris so that it is drier and better suited for disposal.

The Muckraker is engineered and manufactured in the United States for demanding wastewater, septic, lagoon, and industrial service.

2. Safety Information

WARNING Failure to follow proper operating, cleaning, maintenance, and lockout procedures may result in serious injury, equipment damage, spills, or environmental contamination.

Major Hazards

- Electrical power
- Rotating equipment
- Vibrating machinery
- Spill and slip hazards
- Biohazard exposure from wastewater
- Hot surfaces and moving mechanical parts

Required Personal Protective Equipment

- Protective gloves
- Safety goggles or face protection as required by the facility
- Additional PPE required by site-specific rules, wastewater handling requirements, or local regulations

Lockout / Tagout Procedure

The Muckraker is equipped with a Lockout/Tagout master disconnect switch. Normal Lockout/Tagout methods should be followed.

- Turn the machine OFF using the control panel.
- Move the master disconnect switch to the OFF position.
- Apply an approved lockout device and tag to the disconnect switch.
- Verify that power has been removed by attempting a start and confirming no operation.
- Wait until all moving parts have come to a complete stop before opening guards or servicing the machine.

Safety Guards

A screened hood covers the auger area. The auger will not run unless the hood is shut properly. Never bypass or defeat this safety feature.

CAUTION Never open the auger safety hood while the auger is running.

3. Product Overview and Intended Use

The Muckraker is a receiving station for waste haulers. It allows trucks to unload at high rates while screening trash and debris out of the flow automatically.

Intended Industries

- Wastewater treatment facilities
- Lagoons
- Septic pumping companies
- Portable toilet operators
- Stormwater retention pond dredging
- Other dredging and liquid waste receiving applications

Primary Benefits

- Rapid unloading and screening
- No hand raking
- Squeezes water out of trash and debris
- Much better quality screening
- Operates on single-phase 240V power — requires only a 2-pole 30-amp breaker (3-phase not required)
- Very few wear parts

4. Specifications and Model Comparison

General System Specifications

Specification	Description
Maximum Processing Capacity	Up to 400 GPM
Screen Separation Size	3/16 inch
Power Supply	Single-phase 240 Volt
Breaker Requirement	2-pole 30-amp breaker
Power Connection	NEMA 14-50P male plug with 25' power cord included. Requires NEMA 14-50R female receptacle on site. Cord length measured from base of control panel.
Running Current Draw	Approximately 14 amps
Vibratory Motors	Two 3 HP motors
Installation Surface	Level, hard packed ground or pad only — no rubber mats
Unit Footprint	Approximately 12' x 12'
Recommended Working Area	20' x 20' minimum around unit
MR-5 Unit Weight	5,950 lbs
Inlet Connection	6" 150psi flange both sides of feedbox. One side: 6" flange fitted with a 4" threaded male pipe nipple (active). Opposite side: 6" flange blank.
Outlet Connection	6" 150psi flange both sides of capture tank. One side: 6" threaded male pipe nipple offset to bottom of flange for lowest discharge level (active). Opposite side: 6" flange blank. Use 6"x4" reducer if 4" connection required.
Typical Truck Unload Time	10–15 minutes at 400 GPM
Main Release	2024
Serial Number Plate Location	Inside the door of the electrical control panel
Auger Drive Belts	Two (2) V-belts, size B58 (B58 to B62 acceptable)

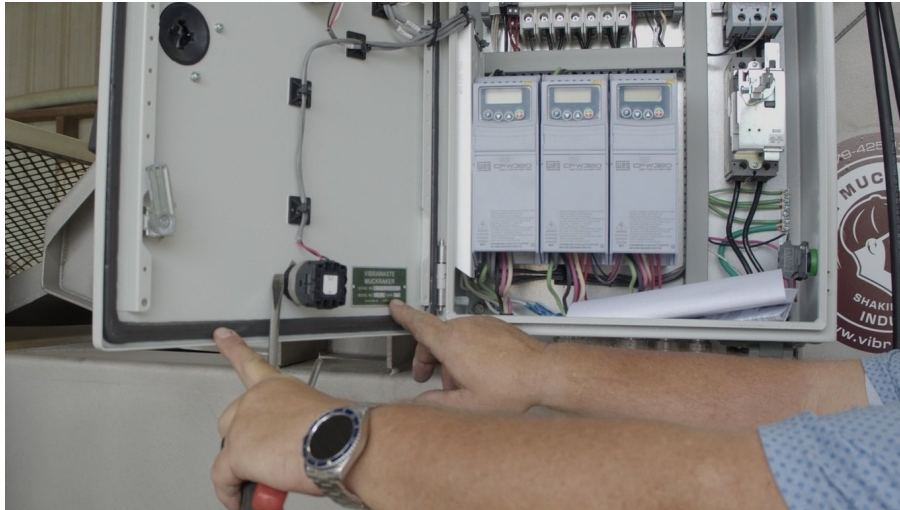
Manufacturer's Data Plate

Each Muckraker is fitted with a manufacturer's data plate located on the inside of the electrical control panel door. The plate displays the unit's serial number, model number, and year of

manufacture. Always reference this information when contacting VibraWaste for service, parts, or warranty support.



Data plate face, showing the serial number, model number, and year fields.



The data plate is mounted on the inside of the control panel door.

Model Comparison

Feature	MR-3	MR-4	MR-5	MR-6
Catch Tray	Yes	No	No	No
Auger System	No	Yes	Yes	No
Conveyor System	No	No	No	Yes
Construction Material	Carbon Steel	Powder Coated Carbon Steel	Stainless Steel	Stainless Steel
Typical Use	Basic receiving	Standard receiving station	High-corrosion environments	High-volume debris handling

Overall Dimensions / Footprint

Model	Width	Length	Height	Special Width Note
MR-3	5' 5"	11' 6"	7' 1"	—
MR-4	5' 5" main tank	11' 6"	7' 1"	11' 9" overall width at auger
MR-5	5' 5" main tank	11' 6"	7' 1"	11' 9" overall width at auger
MR-6	5' 5" main tank	11' 6"	7' 1"	20' overall width at conveyor

NOTICE Each VibraWaste Muckraker is built site specific to the customer's needs. Inlet, outlet, control panel placement, and auger or conveyor discharge orientation may vary. Always verify the actual unit configuration and project-specific drawings before installation.

MR-3 Debris Discharge — How It Works

The MR-3 does not include an auger or conveyor system. Instead, screened trash and debris exit the shaker basket surface and fall into a catch tray. A drain-back channel in the tray allows excess liquid to return to the surge/capture tank, keeping the debris as dry as possible before removal.

Once the unloading cycle is complete, the operator uses a rake to move the trash and debris to the discharge end of the tray and into a waste container. Operators may choose to leave debris on the tray for a period of time to allow additional draining before removal — practices vary by company and facility.

NOTICE Facilities should establish a clear policy for tray cleanup between loads. If the catch tray is not cleared between trucks, the next driver will need to clean it before unloading, which can cause delays and friction between drivers.

5. Major Components

- Feed box
- Shaker basket
- Screen elements
- Catch / capture tank
- Vibratory motors
- Auger motor and gearbox
- Auger
- Extruder tube
- Waste gate
- Control panel
- Travel locks
- Springs and spools
- 25' NEMA 14-50P power cord (included)

Construction Materials

- Carbon steel
- Stainless steel

Replaceable Wear Parts

- Springs
- Screen elements
- Drive belts
- Motors
- Wedge blocks

Optional Accessories

- Auger system
- Catch pan
- Diversion plate
- Conveyor
- Auger and/or conveyor extension

6. Installation

Installation Requirements

- Unload the Muckraker from the delivery trailer.
- Place the unit on a hard packed, stable surface — see Surface and Leveling Requirements below.
- Fully remove all four travel locks before powering up the machine. Each lock has four bolts (two to the basket, two to the base-tank bracket); remove every bolt and the plate completely. See Travel Locks below.
- The main tank unit with the shaker assembly ships assembled.
- Attach the auger or conveyor and connect it to the control panel.
- Connect to a 240V single-phase power supply using the included 25' NEMA 14-50P power cord. The circuit requires a 2-pole 30-amp breaker minimum. A NEMA 14-50R female receptacle must be available within 25' of the base of the control panel.



NEMA 14-50P male plug — included with unit (left) | NEMA 14-50R female receptacle — required on site (right)

Travel Locks

The Muckraker uses four travel locks to secure the shaker basket during transit, one at each of the four spring mounts. The travel locks hold the basket rigid so the springs are not damaged or lost while the unit is being hauled. Each travel lock is a plate held by four bolts: two bolts attach the plate to the basket, and two bolts attach it to the bracket on the base tank. To remove a travel lock, take out all four bolts and remove the plate completely. Do not simply loosen them. All four travel locks, including every bolt and plate, must be fully removed before the machine is operated.



One of the four travel locks, located at each spring mount, securing the shaker basket for transit.

WARNING Fully remove all four travel locks, including every bolt and plate, before powering up the machine. Running the Muckraker with the travel locks installed will damage the springs, the basket, and the vibratory drive.

NOTICE Always install all four travel locks before transporting the machine. Hauling the unit without the travel locks in place can damage or throw the springs.

Required Installation Equipment

- Forklift rated 6,000 lbs or higher — strongly recommended. A 5,000 lb forklift is at the absolute top of its capacity for the MR-5 (5,950 lbs) and is NOT recommended.
- Telehandler with adequate reach and weight rating — excellent alternative to a forklift, especially for complex site access
- Skid steers are generally not recommended — most do not have sufficient lift capacity for the main unit

Required Installation Tools

- 1-1/8" socket and impact wrench — for auger mounting bolts
- 9/16" socket and wrench — for removing the 4 travel locks

- 7/16" socket and wrench — for attaching the hood safety switch
- 5/16" nut driver, socket, or flat head screwdriver — for tightening the two hose clamps on the auger drain back tube connection to the capture tank fitting
- Dead blow hammer — for installing wedge blocks and removing screens if needed
- Standard hammer and blunt punch — for removing wedge blocks
- Pry bar — for breaking screen seal during replacement
- Level — for verifying unit is properly leveled
- Zip ties (4" or longer) and wire cutters — for routing and securing wire loom after auger installation
- Magnet on a stick (optional) — for retrieving dropped fasteners without pulling screens

Lifting Equipment for Auger Assembly

The auger assembly has pre-engineered lifting holes specifically designed for safe attachment during installation. Use the following equipment:

- 2 x bow shackles — rated for the load, attached through the pre-engineered lifting holes
- 2 x lifting straps — minimum 6' length. Shorter straps risk contacting and damaging the auger hood during the lift.
- Available at: Amazon, Harbor Freight, or local bolt and screw supply



Bow shackle — qty 2 required (left) | Lifting strap, minimum 6' — qty 2 required (right)



Auger assembly showing the two pre-engineered pick points (circled in green) — attach shackles and straps here



Auger assembly suspended during installation using telehandler, shackles, and lifting straps



Bow shackle installed through a pre-engineered lifting hole with the lifting strap attached.



Lifting strap and bow shackle rigged at the auger assembly pick point.

Auger Installation Notes

- Slide the ends of the auger mounting bars into the receiver brackets on either side of the capture tank. The ends of the mounting bars should be flush with the end of the receiver brackets.
- After auger installation, route and secure the wire loom using zip ties. Ensure wiring is clear of moving parts.
- Tighten the two hose clamps securing the auger drain back tube to the capture tank fitting using a 5/16" nut driver, socket, or flat head screwdriver.
- Attach the hood safety switch using a 7/16" socket and wrench.
- Confirm the auger mounting drawbar is seated fully flush with the end of the receiver tube on the capture tank, then install and tighten the bolts that fasten the auger assembly to the capture tank.



Auger drain-back connection from the drip pan to the capture tank, secured with two hose clamps. Note the auger mounting drawbar seated flush with the end of the receiver tube.



Close-up of the auger drawbar fully seated flush with the end of the receiver tube, showing two of the bolts that fasten the auger assembly to the capture tank.

Surface and Leveling Requirements

Proper installation surface and leveling are critical to the Muckraker's operation. Because the machine uses vibration to separate solids, the base must be completely stable and fully seated at all times.

- The unit must be placed on a hard packed, stable surface only. Do not place the unit on rubber mats or any resilient material — rubber mats may seem like a useful addition but will negatively affect machine operation by dampening the vibration needed for proper screening.
- The unit must be equally supported across the entire base. If the machine can be wiggled or rocked in any direction, it is not properly seated and must be releveled before operation.
- If the base tank is not completely seated on its mounting surface, harmonics can develop that prevent debris from traveling off the screens properly.
- A rattling belt cover on the auger system is a diagnostic indicator that the base tank is not fully seated — this cover should be rattle-free during normal operation.

Seating Check

To confirm the base tank is fully seated, start the shaker basket and let it come up to regular speed, then turn it off and watch the base tank as the basket slows down. If the base tank

wobbles during spin-down, it is not fully seated. Add shims under the base until the wobble is gone. A wobbling base tank reduces the G-force and the effectiveness of the screening process.

NOTICE If 8x8 treated timbers are used to raise the unit for additional auger discharge height, they must be placed running front to back in the same orientation as the fork pockets, positioned outboard of the fork pockets toward each side of the unit. Never place timbers directly under the fork pockets. Ensure timbers are level and fully support the base across both sides.

Site Requirements

- Level, hard packed installation surface — no rubber mats or resilient material
- Minimum working area of 20' x 20' recommended around the unit for safe operator movement and maintenance access (the Muckraker itself occupies approximately 12' x 12')
- Adequate truck access and turning radius
- Space for debris container placement
- Access to liquid discharge piping or destination tank / lagoon
- 240V single-phase power supply with 2-pole 30-amp breaker and NEMA 14-50R female receptacle located within 25' of the base of the control panel — receptacle must be in a weatherproof enclosure where exposure to the elements is possible
- Water supply for washdown, if available

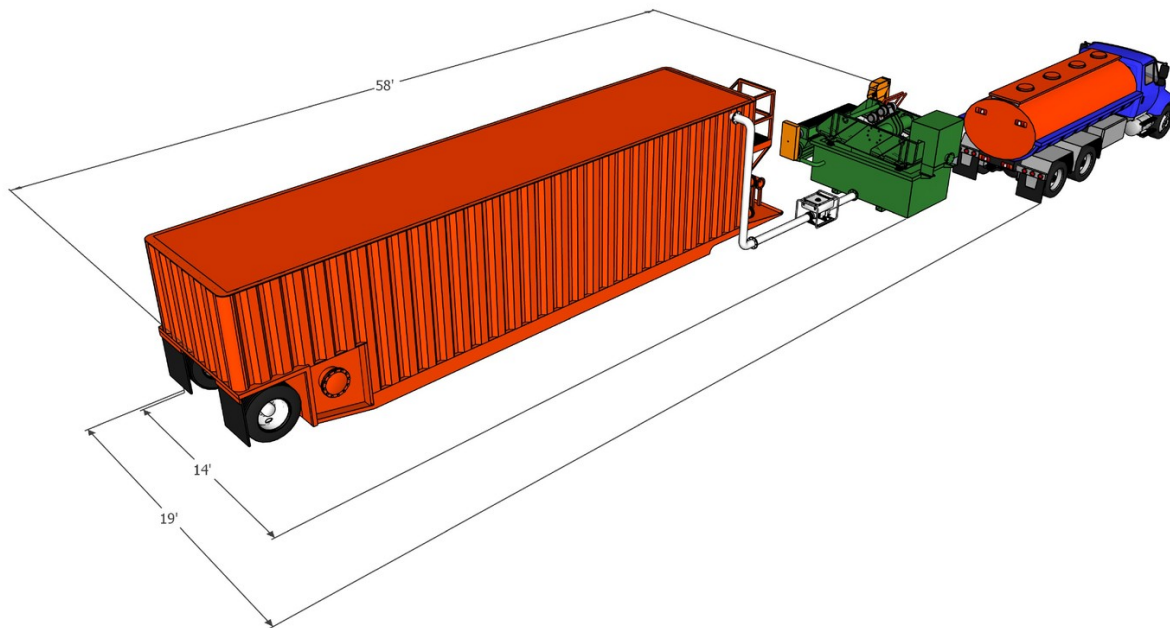
Inlet Hose Connection

Each unit comes with a 4" male threaded nipple as the inlet fitting. Before the camlock fitting is installed, it is recommended to add a 4" 45-degree fitting. This lets the inlet hose angle naturally toward the ground so the weight of the liquid in the hose does not put pressure on the hose itself. That kind of weight and pressure is hard on hoses over time.

7. Site Layout Examples

Figure 1 – Example Receiving Station Layout

This example shows the truck approach, Muckraker unit, roll-off debris container, and overall site footprint with dimensions. The layout below reflects a typical installation using a frac tank for liquid holding. Site dimensions shown: 58' total length, 19' width at container, 14' width at truck approach. Note: the Muckraker unit itself occupies approximately 12' x 12'. A minimum working area of 20' x 20' is recommended around the unit for safe operator movement and maintenance access.

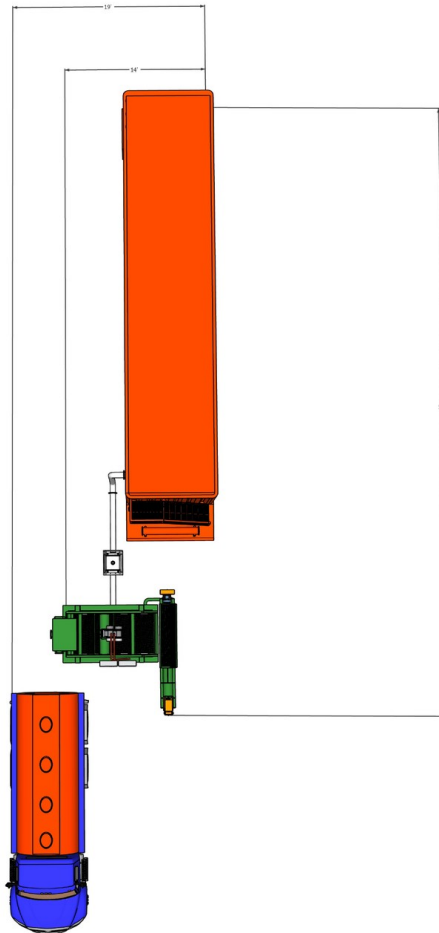


NOTICE Site layout drawings in this manual are examples only. Because each Muckraker is built site specific, actual inlet, outlet, and discharge orientation may vary.

Figure 2 – Aerial View (Plan View)

Top-down view showing the frac tank, Muckraker unit, and vacuum truck in position. Useful for planning truck approach lane, container placement, and required site footprint. Dimensions

shown: 58' total depth, 19' overall width, 14' container width. The Muckraker unit itself occupies approximately 12' x 12'. A minimum working area of 20' x 20' is recommended around the unit.



8. Daily Operator Inspection Checklist

Perform the following checks before operating the Muckraker each day.

Visual Inspection

- Check that the machine is sitting level on the ground or pad
- Verify travel locks are removed before operation
- Inspect power cord for cuts or damage
- Confirm control panel switches are functioning properly
- Check that the auger safety hood is closed and latched

Hose and Connection Inspection

- Inspect truck discharge hoses for cracks, cuts, or excessive wear
- Inspect all hose fittings and couplings for damage or loose connections
- Check the hose from the Muckraker outlet to the liquid destination
- Look for soft spots, bulging areas, or weak sections in hoses
- Verify hoses are securely clamped or connected before operation

Shaker and Screen Inspection

- Inspect screen elements for cracks, tears, clogging, or smearing
- Remove any large debris remaining in the basket
- Ensure screens are seated properly in the frame

Auger System Inspection

- Inspect auger drive belts for wear or looseness
- Verify auger turns freely with no obstructions
- Confirm extruder tube is clear

Structural Inspection

- Inspect springs and spools for damage
- Check for loose or missing bolts and hardware — this is a vibratory machine and bolts can work loose over time even with nylock nuts. Listen for rattling sounds that are not normal as an indicator of loose hardware.
- Verify vibratory motors are securely mounted

Final Checks

- Confirm hoses and fittings are connected securely
- Verify truck or dredge discharge line is ready

NOTICE Old or damaged hoses may leak or burst under pressure, causing spills and unsafe conditions. Replace damaged hoses immediately.

9. Pre-Unload Safety Check

Operators should perform the following 5-step inspection before every truck unload. This quick check helps prevent spills, equipment damage, and auger jams.

Step 1 – Inspect Hoses and Connections

- Inspect truck discharge hose for cracks, cuts, or worn areas
- Check hose couplings and clamps
- Inspect the outlet hose from the Muckraker to the liquid destination
- Ensure hoses are securely connected

Step 2 – Verify Machine Readiness

- Machine is level on the ground or pad
- Travel locks removed from shaker basket
- Safety hood closed and latched
- Power cord connected properly

Step 3 – Check Screens and Basket

- Inspect screens for damage or tears
- Remove leftover debris from previous unloads
- Confirm screens are properly seated in the shaker basket

Step 4 – Inspect Auger Area

- Verify auger area is clear of obstructions
- Inspect drive belts for proper tension
- Confirm extruder tube outlet is clear

Step 5 – Confirm Liquid Discharge Path

- Outlet hose or pipe to lagoon/tank is connected and unobstructed
- Liquid destination is ready to receive flow
- Area around the machine is clear of obstacles

10. Operating Instructions

Control Panel Overview

The Muckraker control panel contains all operational controls for the unit. The following photo shows the front panel layout.

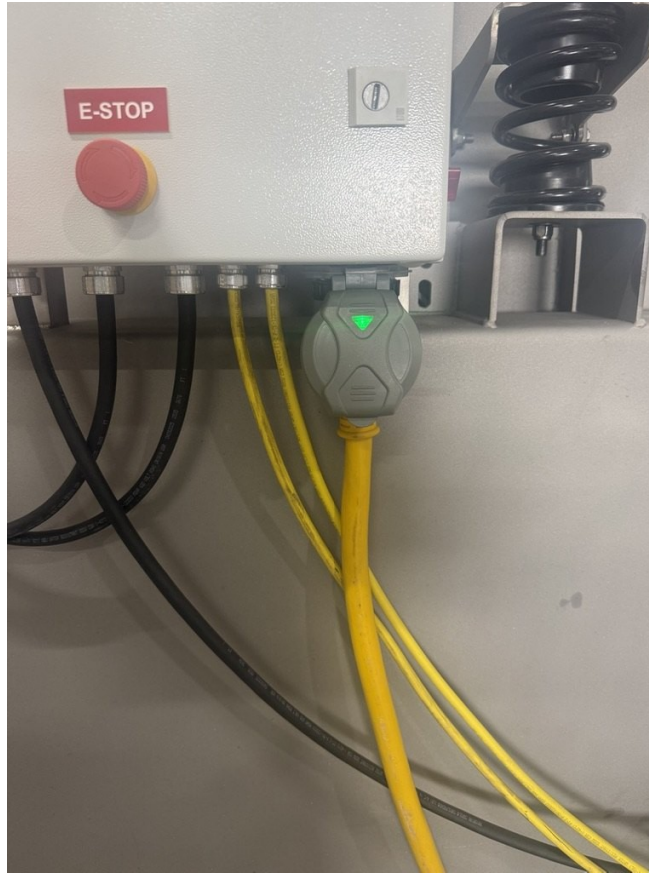


Control panel — Vibration Off/On, Auger Off/On, Auger Fwd/Rev, Auger Speed, Power Lock Out/Tag Out disconnect, and E-STOP button

Startup Procedure

- Plug the NEMA 14-50P power cord into the NEMA 14-50R supply receptacle.
- Turn the main Power Lock Out / Tag Out switch to the ON position.
- Turn the system ON at the control panel.

When power is present, a green indicator light on the cover of the power cord connection at the bottom of the control panel will illuminate. This confirms power is reaching the panel through the cord connection. If the light is not on, check the cord seating, the supply receptacle, and the breaker before troubleshooting further.



Power cord connection at the bottom of the control panel. The green indicator light confirms power is reaching the panel through the cord.

Normal Operating Procedure

- Connect truck or dredge hose to the feed inlet.
- Turn on the shaker system using the Vibration Off/On button.
- Turn on the auger or conveyor system using the Auger Off/On button.
- Place the truck vacuum system in PUSH mode.
- Open the truck discharge valves.
- Monitor flow and screening process.
- After unloading, rinse the screens with water.
- Turn the machine off and disconnect the hoses when finished.

Typical unloading time is 10–15 minutes per truck at 400 GPM.

Signs of proper operation include flashing indicator lights and steady machine sound. Signs of trouble include changes in pitch, unusual noise, or auger belt squeal.

11. Clean Disconnect Procedure

After a truck finishes unloading into the Muckraker, follow this procedure to prevent spills and ensure a clean hose disconnection.

- Allow the truck pressure to release into the Muckraker feed box after unloading.
- Once the truck tank pressure has equalized, close the truck discharge valve.
- Turn the truck pump back to VACUUM mode.
- Allow the truck to create sufficient vacuum inside the tank.
- Reopen the truck discharge valve.
- The truck will vacuum back any remaining liquid from the connection hose and feed box.
- After the hose is cleared, close the discharge valve again and disconnect the hose from the Muckraker.

NOTICE Never begin disconnecting hoses until remaining liquid has been vacuumed back and the hose is no longer pressurized.

12. Startup / Shutdown Quick Guide

Startup	Shutdown
Perform pre-unload safety check	Close truck discharge valves
Plug NEMA 14-50P cord into NEMA 14-50R supply	Turn OFF auger system
Connect truck or dredge hose	Turn OFF shaker system
Turn ON shaker system	Rinse screen elements with water
Turn ON auger system	Perform clean disconnect procedure
Place truck vacuum in PUSH mode	Disconnect hoses
Open truck discharge valves	Disconnect power if machine will not be used again soon
Monitor machine operation	

13. Receiving Station Operating Best Practices

Maintain Proper Flow Rate

- The Muckraker is designed for up to 400 gallons per minute.
- Avoid exceeding this rate to prevent overflow and reduced screening efficiency.

Remove Large Debris When Possible

- Large solid objects such as rocks, bolts, screws, or metal parts may cause auger jams.
- Remove large objects before they enter the system whenever possible.

Monitor Debris Entering the Auger

- Watch the debris coming off the shaker basket during unloading. Stop the auger if rocks, bolts, screws, or similar hard objects are seen dropping into the auger hopper.
- Hard objects entering the auger can cause an abrupt stop and damage the gear and drive system. Careful monitoring is necessary for both operator safety and the longevity of the machine.

Rinse Screens After Each Use

- Cleaning screens after each unloading cycle prevents reduced screening efficiency, buildup, and premature wear.

Inspect the Auger Regularly

- Watch for belt squeal, unusual noise, or reduced debris discharge. These may indicate a jam or worn components.

Keep Electrical Components Dry

- Avoid directing water spray at the control panel, electrical wiring, motor housings, or the power cord connection.

Keep the Machine Area Clean

- Maintain a clean receiving area to prevent slip hazards, debris entry, and maintenance issues.

Inspect Hoses Before Each Load

- Hoses deteriorate due to age, sun exposure, chemical exposure, and repeated pressure cycles.
- Check for cracks, cuts, worn areas, and insecure couplings before each unloading cycle.

Monitor Bolts and Hardware

- The Muckraker is a vibratory machine — bolts can work loose over time even when installed with nylock nuts.
- Perform regular visual and tactile checks for loose or missing hardware.
- Abnormal rattling sounds are a good indicator of loose hardware — investigate immediately.

14. Grit Handling and Removal

NOTICE This machine is not designed to remove grit.

Grit Handling Overview

- If captured water is removed quickly using a pump, higher flow velocity helps keep grit suspended and reduces grit buildup in the capture tank.
- If water is allowed to gravity flow from the capture tank into a downstream pump chamber, the slower velocity will allow grit to settle out and collect in the capture tank.

Grit Removal Procedure

- Turn the machine OFF and perform Lockout/Tagout.
- Remove the wedge blocks holding the screen elements in place using a dead blow hammer and blunt punch.
- Remove the screen elements to gain access to the capture tank.
- Remove accumulated grit with a flat blade shovel.
- If the setup allows, use a large water hose or pressure washer to rinse grit out periodically.
- Disconnect the grit discharge hose if needed so grit does not travel downstream to other tanks or pumps.

15. Common Operator Mistakes

- Running the machine with clogged screens
- Operating above the recommended flow rate
- Allowing large solid objects into the machine
- Ignoring unusual sounds or rattling — this is a vibratory machine and abnormal sounds often indicate loose hardware or a developing problem
- Opening the auger safety hood while the auger is running
- Operating the machine on uneven ground or an unsupported base
- Placing rubber mats or resilient material under the unit
- Directing water spray at the power cord connection or control panel
- Over-greasing the vibratory motor bearings
- Failing to watch the shaker basket and allowing rocks, bolts, screws, or other hard objects to drop into the auger hopper. These can stop the auger abruptly and damage the gear and drive system.

16. Troubleshooting Guide

Quick Problem Index

Symptom Observed	Refer To
Machine will not start	Unit Will Not Start
Shaker basket not vibrating	Shaker Basket Not Vibrating
Liquid backing up or slow flow through screens	Low Screening Performance
Excessive noise from shaker deck	Excessive Noise
Auger not running	Auger Will Not Run
Auger running but not moving debris	Auger Running but Not Moving Debris
Belt squeal from auger drive	Belt Squeal
Auger tray flooding or auger not squeezing solids	Auger Flooding
Liquid overflowing feed box	Feed Box Overflow
Electrical fault or machine shuts off unexpectedly	Electrical Faults
Screen wedge comes loose	Screen Wedge Loose
Solids migrating to one side or not discharging	Solids Migration
Shaker makes unusual loud noise	Unusual Loud Noise
Vibrator overheating	Vibrator Overheating
Material builds up at back edge of screen	Material Buildup at Back Edge

Troubleshooting Flow Guide

- Step 1 – Check electrical power: verify NEMA 14-50P cord is fully seated in NEMA 14-50R receptacle, supply breaker is ON (2-pole 30-amp), and control switches are functioning. The green indicator light on the power cord connection cover confirms power is reaching the panel; if it is off, the panel is not receiving power through the cord.
- Step 2 – Check shaker operation: confirm the shaker basket vibrates and inspect vibratory motor power and mounting bolts.
- Step 3 – Check screening performance: inspect for clogged or damaged screens and verify incoming flow rate is not excessive.
- Step 4 – Check auger operation: confirm the safety hood is shut, inspect belts, and look for auger obstruction.
- Step 5 – Check for mechanical obstruction: unusual sounds or belt squeal may indicate an object lodged between the auger and extruder tube holes.

- Step 6 – Check all bolts and hardware: this is a vibratory machine and bolts can work loose. Inspect all mounting hardware and listen for rattling that indicates loose fasteners.

Troubleshooting Table

Problem	Possible Cause	Corrective Action
Unit will not start	No electrical power, faulty switch, tripped breaker, or NEMA 14-50P cord not fully seated	Verify cord is fully seated in NEMA 14-50R receptacle, check the 2-pole 30-amp breaker, inspect the switch and cord.
Shaker basket not vibrating	Vibratory motor not receiving power, faulty vibratory motor, or loose mounting bolts	Check electrical connections, inspect motor condition, and tighten mounting bolts to spec.
Low screening performance / poor liquid flow	Screens clogged, damaged or worn screens, or electrical power issue	Rinse screens thoroughly, replace damaged elements, and verify incoming voltage.
Excessive noise from shaker area	Screen element splitting at frame edge, loose hardware, or loose wedge blocks	Shut down machine, inspect and replace damaged screen elements, check and re-drive wedge blocks, and tighten all hardware.
Auger will not run	Auger motor not receiving power; safety hood not closed; hood safety switch silver dial not turned to the lock position; Access Cover Release selector switch illuminated (in the release position); loosened auger adaptor shaft retaining bolt with backed-out or ground-down key stock; or faulty motor	Verify power and close the hood. Confirm the hood safety switch silver dial is turned to the lock position and the Access Cover Release selector switch light is off. After correcting either one, press the Auger Off/On button to restart the auger. If the auger lost drive suddenly, check the auger adaptor shaft retaining bolt and key stock (see Section 17). If it still will not run, inspect the motor.
Auger running but not moving debris	Drive belts slipping or broken, or auger jammed with debris	Inspect belts and replace or adjust tension. Shut off auger and inspect for obstruction.
Belt squeal	Object lodged between auger and extruder tube holes	Shut off auger. Locate and remove the lodged object. Restart after obstruction is cleared.
Auger jam / grinding noise	Rock, bolt, screw, or other object lodged between auger and extruder tube holes	Turn auger OFF, set to REVERSE, run until object is visible, turn OFF, open hood,

Problem	Possible Cause	Corrective Action
		remove object, close hood, set to FORWARD, restart.
Auger becomes flooded / will not squeeze solids	Material too wet — screen sections clogged or smeared	Turn auger OFF, open hood, vacuum out auger tray, remove rags on shaft, clean screens, resume unloading.
Electrical faults	Power surge damage, cut wiring, moisture in control panel, or loose NEMA 14-50P cord connection	Inspect cord connection, check components, repair or replace damaged wiring, dry and seal control panel.
Liquid overflowing feed box	Flow rate too high or screens clogged	Reduce truck discharge rate and clean the screens.
Screen wedge comes loose	Wedge not properly installed, or solids under screen or wedge	Re-drive wedge using a dead blow hammer with adequate force. If problem persists, remove wedge and screen, clean screen bed, screen, and wedge thoroughly, then reinstall.
Solids migrating to one side of basket or not discharging properly	One vibratory motor not running, or one or both motors rotating in the wrong direction	Check vibratory motor and control panel. Correct motor rotation direction as needed. Both motors must rotate in the same direction.
Shaker makes unusual loud noise	Loose or missing wedges, worn vibrator bearings, or loose bolts	Check and re-drive wedge blocks using a dead blow hammer. Inspect and tighten all hardware. If noise persists, inspect bearings and replace if worn.
Vibrator overheating (70°F / 21°C over ambient temperature)	Bearing out of grease or bearing worn out	Regrease bearings using Klüber Isoflex Topas NB 52 — apply only a very small amount. If overheating continues, replace bearings.
Material builds up at back edge of screen	Vibratory motor rotating in wrong direction	Reverse motor rotation direction. Refer to control panel wiring schematic.

Operational Notes for New Installations

The following situations are normal and expected during the early stages of operation.

Switching from Gravity Dumping to Pressure Mode

If your vacuum trucks have previously been unloading by gravity flow, switching to pressure mode with your new Muckraker will produce noticeably different results in the first few loads. Pumping under pressure has a tendency to flush accumulated debris that has settled to the bottom of the vacuum tank over time. This debris will arrive on the Muckraker screens rapidly and in large quantities during the first few loads. Screen one may become heavily loaded with debris and may require raking to clear it. This is normal and will diminish as the trucks are cleaned out over the first several cycles.

MR-5 Auger — Extruder Plug Building Period

When the MR-5 auger system is first put into service, the extruder tube must build a compression plug at the waste gate end before it operates at full efficiency. During this initial plug-building period — typically the first few days of operation — you may notice water weeping or draining from the waste gate door. This is normal and expected. Once the plug has been established, the water coming from the waste gate should be greatly diminished or disappear altogether.

NOTICE Do not attempt to block or seal the waste gate during the plug-building period. Allow the process to occur naturally. If weeping continues beyond the first week of regular use, contact VibraWaste.

Service Call Checklist

- Record the model number, serial number, date of installation, and facility name.
- Describe the operating conditions when the problem occurred, including discharge rate and any unusual sound or smell.
- List the problem observed and troubleshooting steps already performed.
- Provide photos or video when possible.
- Contact VibraWaste at 479-425-1307 or info@vibrawaste.com.

17. Maintenance Schedule

Routine Maintenance

- Lubrication
- Belt inspection
- Bolt and hardware inspection
- Cleaning

Recommended Intervals

Task	Continuous Use	Receiving Station Use
Grease vibratory motors (Klüber Isoflex Topas NB 52)	Every 1 month	Every 3 months
Inspect auger drive belts	Every 6 months	Every 6 months
Inspect screen elements	Daily / after each use	Daily / after each use

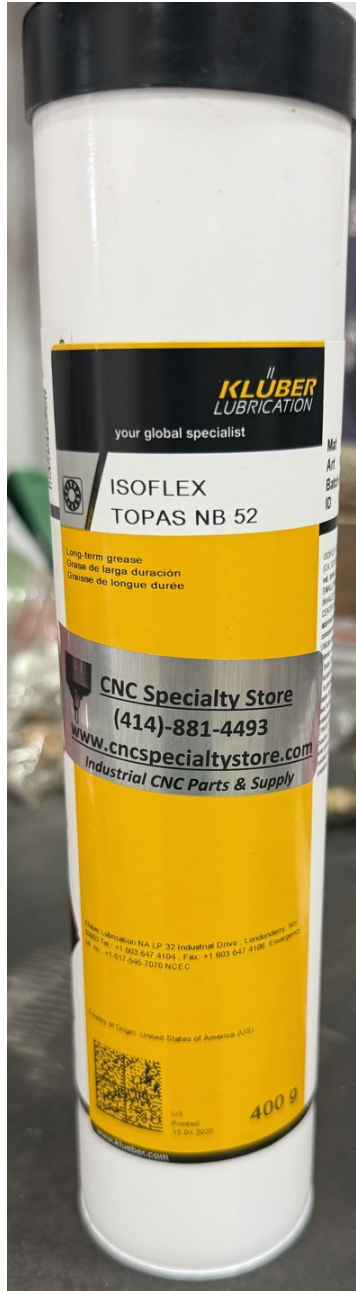
Expected Service Life

- Carbon steel structure: approximately 10 years
- Stainless steel structure: approximately 30 years
- Screen elements: approximately 6 months continuous use and up to 2 years in receiving station mode

Specified Grease — Vibratory Motors

The specified grease for the Muckraker vibratory motors is Klüber Isoflex Topas NB 52. This is a high-performance synthetic grease designed for vibratory and high-speed bearing applications and is available for purchase at:

cnc-specialty-store.com/grease-lubrication/kluber-isoflex-topas-nb-52-400g-0041310591



Klüber Isoflex Topas NB 52 — 400g cartridge

NOTICE Do not substitute standard bearing grease or general-purpose grease. Using the wrong grease in vibratory motor bearings will reduce bearing life and may void the motor warranty.

Screen Element Replacement Procedure

Screen elements can be replaced individually without removing any other screens. Follow this procedure when a screen element is damaged, worn, or needs replacement.

WARNING Perform full Lockout/Tagout before beginning this procedure. If Lockout/Tagout is not available, unplug the NEMA 14-50P cord from the power supply. Verify all moving parts have come to a complete stop before proceeding.

Tools required: dead blow hammer (preferred for installing wedge blocks), standard hammer, blunt punch, pry bar.



Wedge block — used to secure screen elements in the basket frame

- Step 1 — Perform Lockout/Tagout or unplug the machine from its power source. Confirm all motion has stopped.
- Step 2 — Locate the wedge blocks on either side of the screen element to be replaced. Before removal, take note of how far each wedge block is driven in so you can return them to the same position during reinstallation.
- Step 3 — Using a hammer and blunt punch, drive each wedge block out from its bracket. The wedge blocks are friction-locked under a bracket and hold the screen element firmly to the basket frame.
- Step 4 — Once both wedge blocks are removed, the screen element may have formed a seal against the frame. If needed, use a pry bar to apply slight upward pressure to break the seal and free the screen.
- Step 5 — Remove the screen element from the basket frame.
- Step 6 — Clean the frame track thoroughly to remove any accumulated debris, grit, or buildup before installing the new screen.
- Step 7 — Set the new screen element into the frame track and confirm it is properly seated.
- Step 8 — Drive the wedge blocks back into position using a dead blow hammer (preferred), returning them to the same depth noted in Step 2. Ensure firm friction lock on both sides before returning the machine to service.



Wedge blocks in position (circled) securing screen elements in the shaker basket

NOTICE If a fastener is dropped into the capture tank during screen removal, try retrieving it with a magnet before fully removing the screens. If screens must be removed, use a dead blow hammer and blunt punch to drive out the wedge blocks as described above.

Spring Replacement Procedure

The shaker basket is supported by four springs, one at each corner. The bottom spring mount and spool are fastened to the top rail of the surge/capture tank. The top mounts are bolted to the basket assembly. Springs can be replaced individually.

WARNING Perform full Lockout/Tagout before beginning this procedure. If Lockout/Tagout is not available, unplug the NEMA 14-50P cord from the power supply. Verify all moving parts have come to a complete stop before proceeding.

Tools required: appropriate support equipment (jack stand, block, or equivalent), hand tools for mount bolts.

- Step 1 — Perform Lockout/Tagout or unplug the machine from its power source. Confirm all motion has stopped.
- Step 2 — Identify the spring to be replaced. There are four springs total, one at each corner of the shaker basket.
- Step 3 — Safely support the shaker basket in the area near the spring being replaced. The basket must be adequately supported before the top mount is removed.
- Step 4 — Remove the bolts securing the top mount bracket to the basket assembly.
- Step 5 — Lift the spring off the bottom spool mount and remove it.
- Step 6 — Place the new spring onto the bottom spool mount, ensuring it is properly seated.
- Step 7 — Reinstall the top mount bracket and secure the bolts.
- Step 8 — Carefully release the support holding the basket and confirm the spring is carrying load correctly before returning the machine to service.

NOTICE Never remove the top mount bracket without first supporting the basket. An unsupported basket can shift suddenly when the spring is removed.

Extruder Tube Removal & Cleaning

The underside of the extruder tube can be removed for cleaning by loosening the bolts that secure it. The catch pan must be removed first to gain access to this area.

WARNING Perform full Lockout/Tagout before beginning this procedure. If Lockout/Tagout is not available, unplug the NEMA 14-50P cord from the power supply. Verify all moving parts have come to a complete stop before proceeding.

- Perform Lockout/Tagout or unplug the machine from its power source. Confirm all motion has stopped.
- Remove the catch pan to gain access to the underside of the extruder tube.
- Loosen the bolts securing the removable underside section of the extruder tube.
- Remove the section and clean out any accumulated debris or buildup.
- Reinstall the section, retighten the bolts, and reinstall the catch pan before returning the machine to service.



Underside of the extruder tube. Loosen the bolts shown to remove this section for cleaning. The catch pan must be removed first to access this area.

Auger Drive Belts

The auger motor and gearbox assembly uses two (2) V-belts, size B58. If a B58 belt is not available, a belt in the B58 to B62 range may be substituted. The assembly is designed with ample adjustment range to accommodate the larger size. Inspect the belts for wear or looseness on the interval shown in the maintenance schedule above.

Belt tension is important. The belts should be tight enough that they do not slip under normal operation, but a slight amount of slack is desired. The small amount of slip acts as built-in protection for the drive. If the belts are over-tightened so they cannot slip, that protection is lost.

WARNING Do not over-tighten the auger drive belts. Belts that cannot slip can strip a gear or break the input shaft inside the gearbox. When in doubt, leave a small amount of slack rather than over-tightening.

Auger Drive Components

The following auger drive component details will be added as they are finalized. Record the values for your unit here for parts ordering and service.

Component	Specification
Gearbox model number	SCSMR3-25/1+
Gearbox part number	To be provided
Gearbox ratio	25:1
Gearbox input shaft size (diameter)	To be provided

Component	Specification
Auger drive motor	WorldWide Electric PEWWE3-18-182T
Motor rating	3 HP, 1755 RPM, 60 Hz
Motor voltage / full-load amps	230/460V, 3-phase, 8.16 / 4.08 A
Motor frame	182T
Motor enclosure / service factor	TEFC, 1.25 SF
Motor insulation class	F
Motor bearings (DE / ODE)	6206ZZ C3
Auger drive belts	Two (2) V-belts, size B58 (B58 to B62 acceptable)
Motor pulley part number	To be provided
Motor pulley dimensions (OD / pitch diameter, grooves)	To be provided
Motor pulley bore / bushing size	To be provided
Gearbox pulley part number	To be provided
Gearbox pulley dimensions (OD / pitch diameter, grooves)	To be provided
Gearbox pulley bore / bushing size	To be provided
Belt center distance / adjustment range	To be provided

The auger gearbox ships pre-filled with oil from the VibraWaste manufacturing facility. No oil needs to be added before placing the unit in service. Scan the QR code below for the gearbox manufacturer's manual and maintenance information.



Scan for the auger gearbox manual and maintenance information (IOM).

Auger Adaptor Shaft Retaining Bolt

A retaining bolt secures the auger adaptor shaft that runs through the gearbox. If this bolt works loose, the key stock backs out of its groove and is ground down a little more with every revolution. Left unchecked, this progresses to failure of the auger adaptor shaft, key stock, gearbox, crush washer, and bolt.

This bolt can work loose over time from repeatedly reversing the auger to unwind lodged debris and then running it forward again. Because it is easy to overlook, it should be checked as part of routine maintenance.

WARNING Check the auger adaptor shaft retaining bolt (circled below) periodically, and especially after any jam-clearing that required reversing the auger. Confirm it is tight and torqued to 15-17 ft-lb. A loose bolt here can destroy the shaft, key stock, and gearbox.



The auger adaptor shaft retaining bolt (circled). Check it periodically and after any auger reversing, and keep it torqued to 15-17 ft-lb.

18. Preventative Maintenance Calendar

Daily (Before Operation)

- Inspect machine is sitting level and fully supported across entire base
- Inspect truck discharge hoses and outlet hoses for damage or leaks
- Check hose couplings and clamps
- Inspect screen elements for clogging or damage
- Remove leftover debris from shaker basket
- Verify auger safety hood is closed and latched
- Inspect auger area for obstruction
- Confirm liquid discharge path is clear
- Inspect NEMA 14-50P power cord and receptacle connection

After Each Truck Unload

- Rinse screens to remove buildup
- Inspect screens for tears or damage
- Perform clean disconnect procedure before removing hoses
- Verify auger is clearing debris properly

Monthly Maintenance

- Grease vibratory motors with Klüber Isoflex Topas NB 52 — apply small amounts only, do not over-grease
- Inspect springs and spools
- Inspect auger drive belts for wear or looseness
- Inspect all bolts and fasteners for looseness or missing hardware — the Muckraker is a vibratory machine and bolts can work loose over time even with nylock nuts. Abnormal rattling sounds are a good indicator of loose hardware.
- Check the auger adaptor shaft retaining bolt is tight (torque 15-17 ft-lb). Also re-check this bolt after any auger reversing used to clear a jam. See Auger Adaptor Shaft Retaining Bolt in Section 17.

Every 6 Months

- Inspect auger drive belts for wear or cracking
- Inspect screen frames for fatigue or cracking
- Inspect vibratory motor mounting bolts
- Inspect electrical wiring and connections
- Inspect NEMA 14-50P power cord for damage, cracking, or worn insulation

Annual Inspection

- Inspect entire shaker assembly structure
- Inspect auger shaft and extruder tube
- Inspect control panel wiring and switches
- Replace worn screens if necessary

- Perform full operational inspection

19. Receiving Station Safety & Environmental Compliance

Spill Prevention

- Inspect hoses and couplings before every truck unload.
- Ensure hoses are secure and properly supported.
- Verify the liquid discharge path to the lagoon, tank, or treatment system is clear.
- Use the clean disconnect procedure to remove liquid from hoses before disconnecting.
- Clean up spills immediately.

Landfill Paint Filter Compliance

Landfills often require disposed debris to pass the Paint Filter Test. The Muckraker helps meet this requirement by separating liquids from debris larger than 3/16 inch and using the auger compression system to squeeze liquid from debris before disposal.

Debris Handling

- Discharge debris into an approved dumpster or waste container.
- Do not allow debris to accumulate around the machine.
- Wear gloves and eye protection because debris may contain sharp or contaminated material.

Washdown Water Management

- Rinse screens after each unloading cycle using moderate water spray.
- Avoid spraying the control panel, motors, wiring, or the power cord connection.
- Whenever possible, direct washdown water into the same wastewater collection system as the Muckraker discharge.
- Do not allow washdown water to flow into stormwater systems or surrounding ground areas.

20. Vibratory Motor System

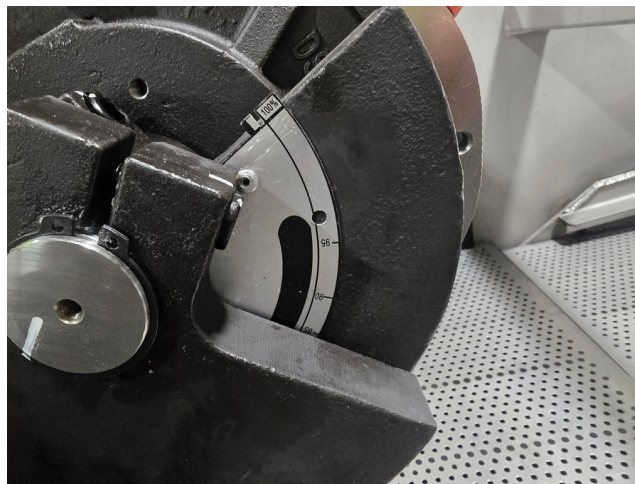
The Muckraker utilizes vibratory drive motors to power the shaker basket and provide solids separation. The motors are critical to system performance and must be properly mounted, wired, and maintained.

- Verify motors run smoothly without abnormal sound.
- Inspect motor mounting bolts regularly and torque to specification.
- Monitor for overheating or abnormal vibration.
- Keep motors clean and free of debris.
- Refer to the motor manufacturer's manual for detailed wiring, service, and advanced troubleshooting.

G-Force Weight Settings

Each Muckraker ships with the vibratory motor eccentric weights preset to 85% G-force. This setting is appropriate for most receiving station applications and can be adjusted if needed.

- The eccentric weights are located on each end of both vibratory motors.
- Both motors must always be set to the same percentage — mismatched settings will cause uneven vibration and poor screening performance.
- Both sides of each individual motor must also match each other.
- When adjusting, set all four weight positions (two per motor, two motors) to the same percentage before restarting.



Vibratory motor eccentric weight dial — units ship preset at 85% G-force

Vibratory Motor Bolt Torque Requirements

Proper torque on vibratory motor mounting bolts is critical. Under-torqued bolts will loosen rapidly under vibration and can cause motor failure or structural damage.

WARNING Always use a calibrated torque wrench when installing or replacing vibratory

motor mounting bolts. Never estimate torque by feel on a vibratory machine.

- Large motor mounting bolts: torque to 320 ft-lb (430 N-m)
- Small motor mounting bolts: torque to 170 ft-lb (230 N-m)
- After initial installation, run the machine for 4 to 8 hours, then re-torque all motor mounting bolts to the values listed above.
- Motor mounting bolts should be inspected and torque verified every time the shaker screens are replaced.

Grease Point Locations

Each vibratory motor has two zerk fittings (grease nipples), one on each end of the motor. With two motors on the unit there are four grease points total.

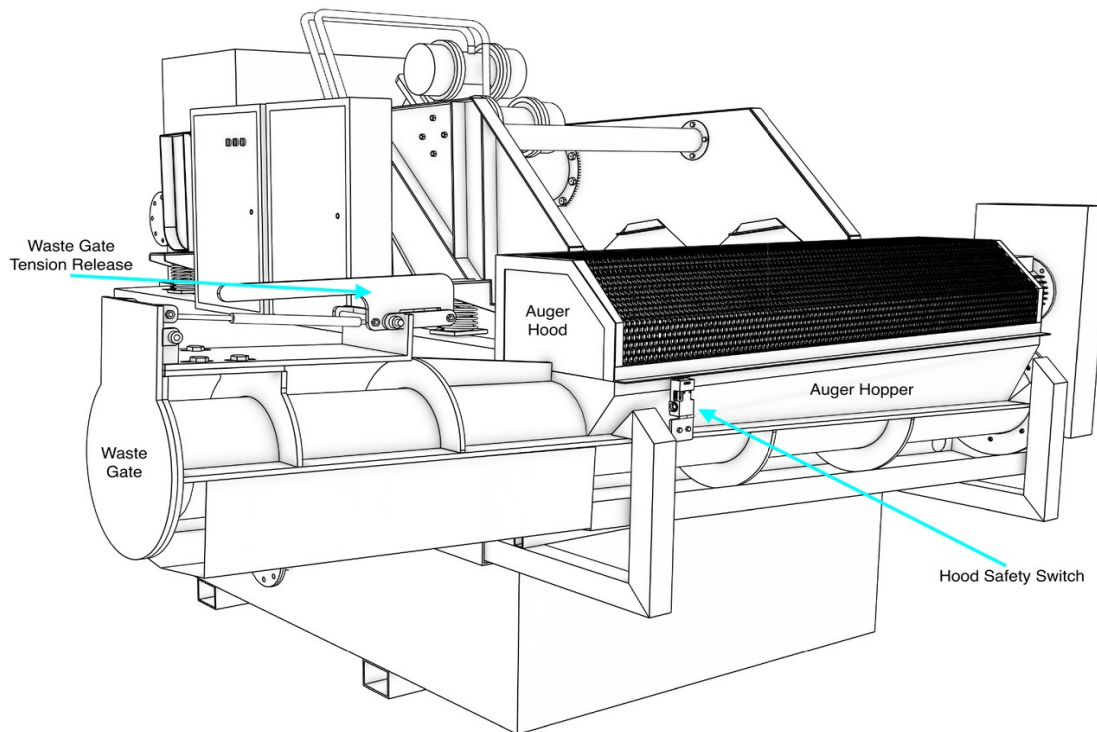


Grease points (circled in green) — two zerk fittings per motor, four total

WARNING Apply only a very small amount of grease per fitting. Over-greasing can force grease past the internal motor seals, causing seal damage and potential motor failure. When in doubt, apply less.

Auger Hood Safety System — MR-4 and MR-5

The auger inspection hood is equipped with a safety interlock that prevents it from being opened while the auger is in operation. There are two methods to safely open the hood:



Waste gate tension release, auger hood, and hood safety switch locations



Earlier models: push-button Access Cover Release (circled in green). This version required two people, one to hold the button and one to open the hood.

Method 1 — Control Panel Release Button

Newer Muckraker units use a red selector switch for the Access Cover Release, which lets one person open the auger hood without a second person holding a button. Earlier units used a push-button release (shown above) that required two people. Both versions are described below.



Newer models use a red Access Cover Release selector switch on the side of the control panel, allowing one-person operation.

Newer models (selector switch, one-person operation)

- Locate the red Access Cover Release selector switch on the side of the control panel.
- Turn the selector switch to the release position. The switch light comes on, the auger automatically shuts off, and the hood unlocks. The auger will not run while this light is on.
- With the auger stopped, one person can open the hood and perform the required work.
- Close the hood and turn the selector switch back to the run position so its light goes off. The auger does not restart on its own. Press the Auger Off/On button again to restart the auger.

Earlier models (push-button, two-person operation)

- Locate the green Access Cover Release button on the side of the control panel.
- One person presses and holds the button while a second person opens the hood.
- Pressing the button automatically shuts the auger off.
- Once the hood is closed and work is complete, press the Auger Off/On button on the control panel to restart the auger.

Method 2 — Hood Safety Switch

- Locate the red safety switch mounted on the auger hood.

- Using a Phillips screwdriver, twist the front of the switch to the unlock position.
- This action automatically shuts the auger off and allows the hood to be opened.
- Perform the required work — clearing debris or resolving the issue inside.
- Close the hood and twist the silver rotating dial on the switch back to the lock position. The auger will not run unless this dial is turned to the lock position.
- Return to the control panel and press the Auger Off/On button to restart the auger.

WARNING Never attempt to open the auger hood by any other means. Always confirm the auger has come to a complete stop before reaching inside.



Scan for video — safe operation of the auger hood safety switch

Emergency Stop — All Models

All Muckraker models are equipped with an emergency stop button on the front of the control panel. If the e-stop button is pressed, follow this procedure to reset the machine before restarting:

- Press the e-stop button to stop the machine immediately if needed.
- Turn the main Power Lock Out / Tag Out switch to the OFF position.
- Wait a minimum of two minutes — this allows the controls inside the panel to fully power down and reset.
- Turn the main Power Lock Out / Tag Out switch back to the ON position.
- Restart the motor normally.
- Investigate the cause of the emergency stop before resuming operations.

NOTICE Skipping the two-minute wait after an e-stop may prevent the machine from restarting correctly. The control system requires a full power-down cycle to reset properly.



Scan for the separate vibratory motor manual

21. Operator Quick Reference Page

NOTICE This page is intended to be printed, laminated, and mounted near the control panel.

Startup	Shutdown
Perform pre-unload safety check	Close truck discharge valves
Plug NEMA 14-50P cord into NEMA 14-50R supply	Turn OFF auger system
Connect truck or dredge hose	Turn OFF shaker system
Turn ON shaker system	Rinse screen elements with water
Turn ON auger system	Perform clean disconnect procedure
Place truck vacuum in PUSH mode	Disconnect hoses
Open truck discharge valves	Disconnect power if machine will not be used again soon
Monitor machine operation	

Auger Jam Clearing Procedure

- Turn the auger OFF.
- Set the rotation switch to REVERSE.
- Run the auger in reverse until the object becomes visible.
- Turn the auger OFF.
- Open the safety hood and remove the lodged object.
- Close the safety hood securely.
- Set the rotation switch back to FORWARD.
- Restart the auger.

NOTICE Repeatedly reversing and restarting the auger to clear jams can work the auger adaptor shaft retaining bolt loose. After clearing a jam, check that bolt and confirm it is tight (torque 15-17 ft-lb). See Auger Adaptor Shaft Retaining Bolt in Section 17.

Emergency Shutdown

- Turn the main power switch OFF immediately.
- Unplug the NEMA 14-50P cord from the power supply if needed.
- Wait for all moving parts to stop.
- Investigate the problem before restarting.

E-Stop Reset Procedure

- Turn Power Lock Out / Tag Out switch to OFF.
- Wait 2 full minutes for controls to power down.
- Turn Power Lock Out / Tag Out switch back to ON.
- Restart motor normally.

22. Warranty Information

Limited Warranty

VibraWaste warrants the Muckraker screening system to be free from defects in materials and workmanship under normal use and service for a period of six (6) months from the date of delivery to the original purchaser.

During the warranty period, VibraWaste will, at its discretion, repair or replace defective components determined to have failed due to defects in materials or workmanship.

Manufacturing Statement

The VibraWaste Muckraker is engineered and manufactured in the United States and built to meet high standards of performance, durability, and reliability.

Warranty Exclusions

- Improper installation
- Operator misuse or negligence
- Operation outside recommended conditions
- Failure to perform normal maintenance
- Damage caused by foreign objects entering the system
- Unauthorized modifications
- Electrical damage caused by power surges, improper wiring, or incorrect breaker sizing
- Normal wear items

Normal Wear Items

- Screen elements
- Springs
- Drive belts

Warranty Claim Procedure

- Contact VibraWaste as soon as the issue is identified.
- Provide the machine model and serial number.
- Provide a description of the problem and operating conditions.
- Allow VibraWaste reasonable opportunity to inspect the equipment if necessary.

23. Service & Maintenance Log

Machine Information

Field	Value
Model Number	
Serial Number	
Installation Date	
Facility Name	
Operator / Supervisor	

Maintenance Record

Date	Operating Hours	Service Performed	Parts Replaced	Performed By

Routine Maintenance Tracking

Maintenance Item	Interval	Last Completed	Next Due	Notes
Grease vibratory motors (Klüber Isoflex Topas NB 52)	Monthly			
Inspect drive belts	Every 6 months			
Inspect screen elements	Daily			
Inspect springs	Monthly			

Maintenance Item	Interval	Last Completed	Next Due	Notes
Inspect hoses and couplings	Daily			
Inspect all bolts and hardware	Monthly			
Inspect NEMA 14-50P power cord	Every 6 months			

24. Site Planning Reference for Engineers

This section consolidates all technical, spatial, electrical, and utility information needed to complete a site plan for a Muckraker receiving station installation.

Unit Dimensions and Footprint

- Unit footprint: approximately 12' x 12'
- Recommended minimum working area: 20' x 20' around the unit
- Height: 7' 1" (all models)
- MR-4 / MR-5 overall width at auger: 11' 9"
- MR-6 overall width at conveyor: 20'
- See Section 25 for dimensioned drawings (Figures 3–6)

Site Layout and Clearances

- Level, hard packed ground or concrete pad required — no rubber mats or resilient material
- Forklift rated 6,000 lbs or higher, or telehandler required for unit placement — skid steers not recommended
- Adequate truck approach lane and turning radius required
- Typical full site layout (unit + frac tank + truck): 58' deep x 19' wide
- Operator access required on all sides of the unit
- See Section 7 for site layout diagrams (Figures 1–2)

Liquid Holding — MR-3, MR-4, MR-5 (Non-Conveyor Models)

- A frac tank (minimum 22,000-gallon capacity) is recommended for holding screened liquid discharge
- The frac tank should be positioned at the liquid outlet of the Muckraker within piping reach
- Gravity flow or pump discharge both supported

Inlet Connections

- 6" 150psi flange provided on both sides of the feedbox
- Active side: 6" 150psi flange fitted with a 4" threaded male pipe nipple
- Blank side: 6" 150psi flange blank — capped, available if a second inlet is needed

Outlet Connections

- 6" 150psi flange provided on both sides of the capture tank
- Active side: 6" 150psi flange with 6" threaded male pipe nipple — nipple is offset to the bottom of the flange to ensure the lowest possible discharge level from the capture tank

- Blank side: 6" 150psi flange blank — capped, available if a second outlet is needed
- If a 4" connection is required, a 6" x 4" reducer fitting is recommended

Debris / Solids Discharge

- MR-3: screened debris collects in the catch tray and is raked by the operator to the discharge end. Suitable collection options include a forkable tipping bin or a simple tub with a trash bag liner positioned adjacent to the tray discharge
- MR-4 / MR-5: auger discharges compressed solids into a container at the discharge point. Suitable options include a low-side roll-off dumpster, a forkable tipping bin, or a simple tub with a trash bag liner
- MR-6 (conveyor model): low-side roll-off dumpster required at conveyor discharge point

Electrical Requirements

- Power supply: single-phase 240V
- Breaker: 2-pole 30-amp minimum
- Receptacle required on site: NEMA 14-50R female receptacle (50A 125/250V)
- Each unit includes a 25' power cord with NEMA 14-50P male plug — cord length is measured from the base of the control panel
- NEMA 14-50R receptacle must be located within 25' of the base of the control panel
- Receptacle must be installed in a weatherproof enclosure where exposure to the elements is possible
- Running current draw: approximately 14 amps
- 3-phase power is not required

Water / Washdown

- Water supply for screen washdown recommended but not required
- Washdown water must be directed into the wastewater collection system, not stormwater drainage

Surface / Civil

- Hard packed, stable surface required — level pad or compacted gravel only. No rubber mats or resilient material.
- Surface must support unit weight plus loaded truck approach
- MR-5 unit weight: 5,950 lbs — contact VibraWaste for weights of other models

NOTICE All connection sizes, configurations, and discharge orientations are built site specific. Always confirm final specifications with VibraWaste before completing engineered drawings.

25. Parts & Diagram References / Illustrated Parts Identification

The following technical drawings are provided for reference. Actual machine configuration may vary by project.

Figure 3 – Side View (Feed Box Side)

Shows inlet, shaker basket, capture tank, control panel, vibratory motors, auger motor and gearbox, safety hood, extruder assembly, spring and mount, liquid outlet, and trash waste gate with key dimensions.

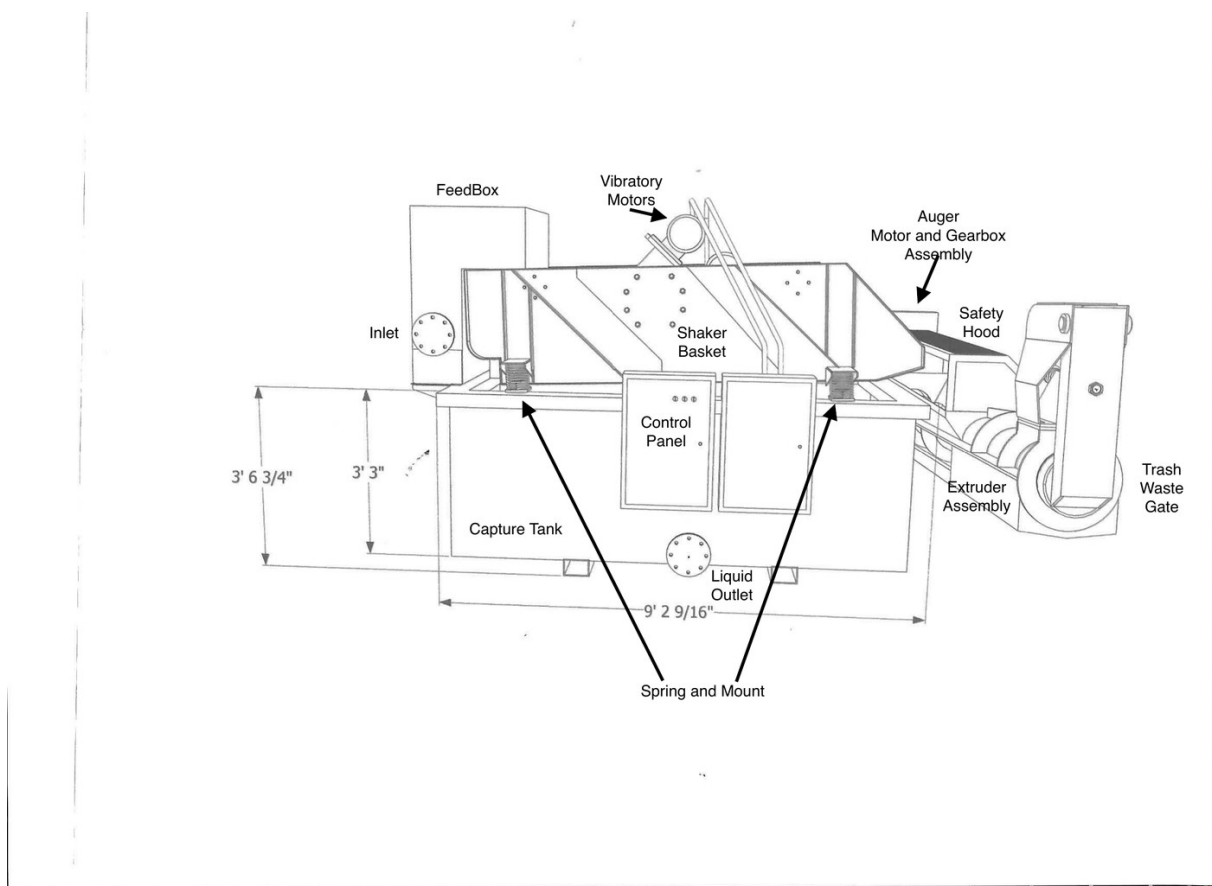


Figure 4 – Top View (Plan View)

Shows feedbox, 4 screen elements, 8 wedge blocks, spring mounts, vibratory motors, auger drain back tube, auger motor and gearbox, auger and hopper, safety cover, extruder tube, trash and debris wastegate assembly, and control panel with overall dimensions.

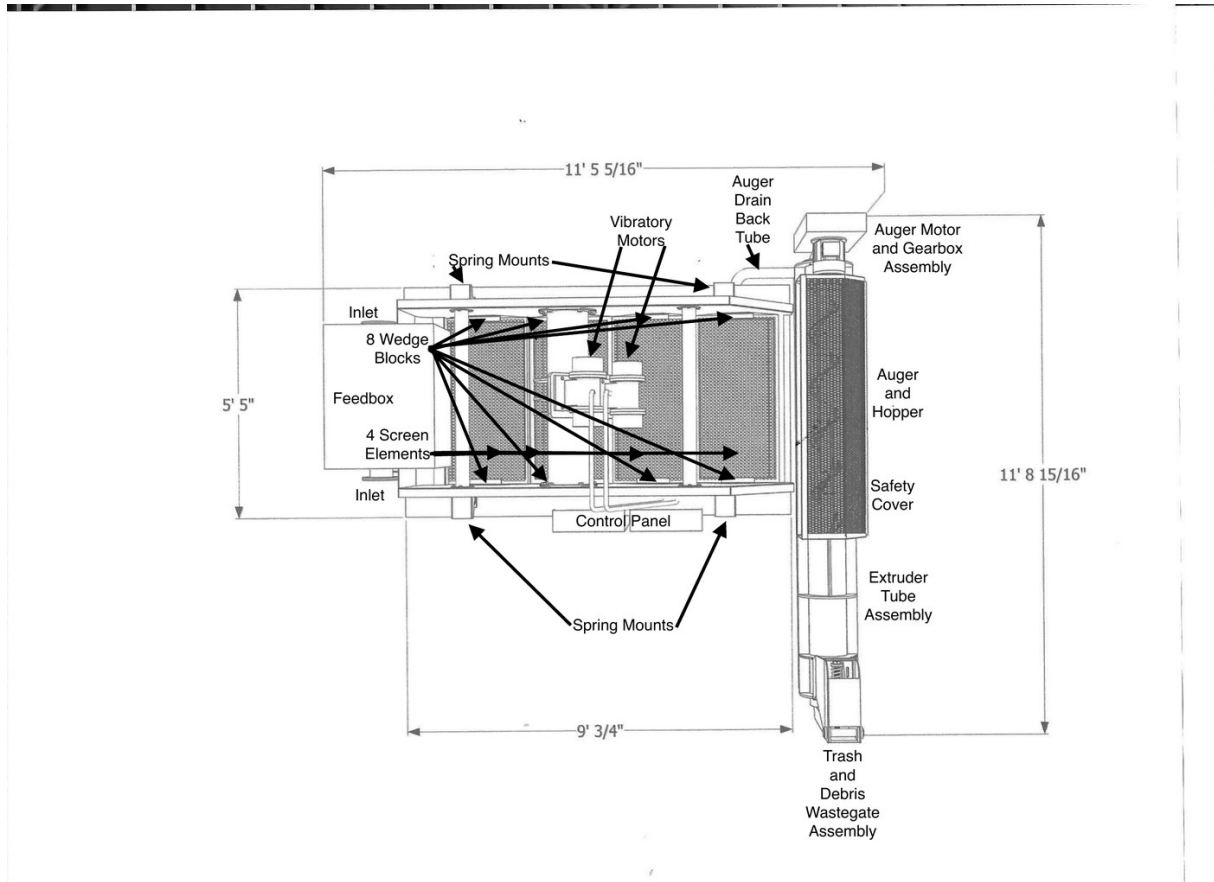


Figure 5 – Discharge Side View (Updated — Auger System)

Shows updated waste gate assembly, extruder, catch pan and drain back tray, auger hopper, hood safety switch, and belt cover.

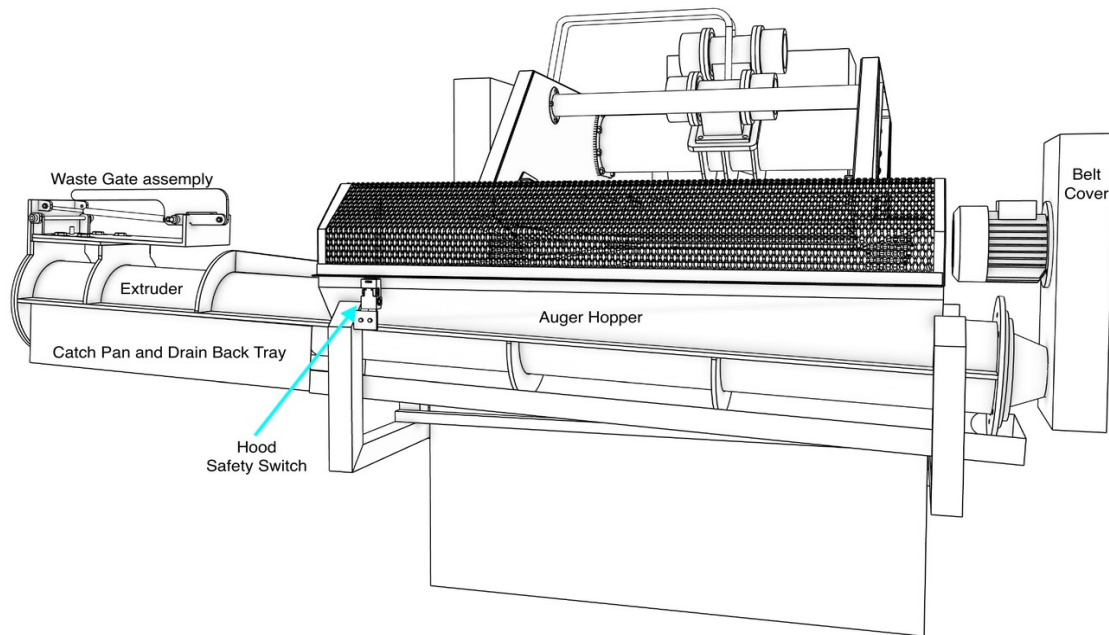


Figure 6 – Opposite Side / Mechanical View

Shows vibratory motors, feedbox, inlet, shaker basket, springs and mounts, capture tank, auger motor and gearbox assembly, removeable belt cover, auger drain back, and liquid discharge with overall height dimension.

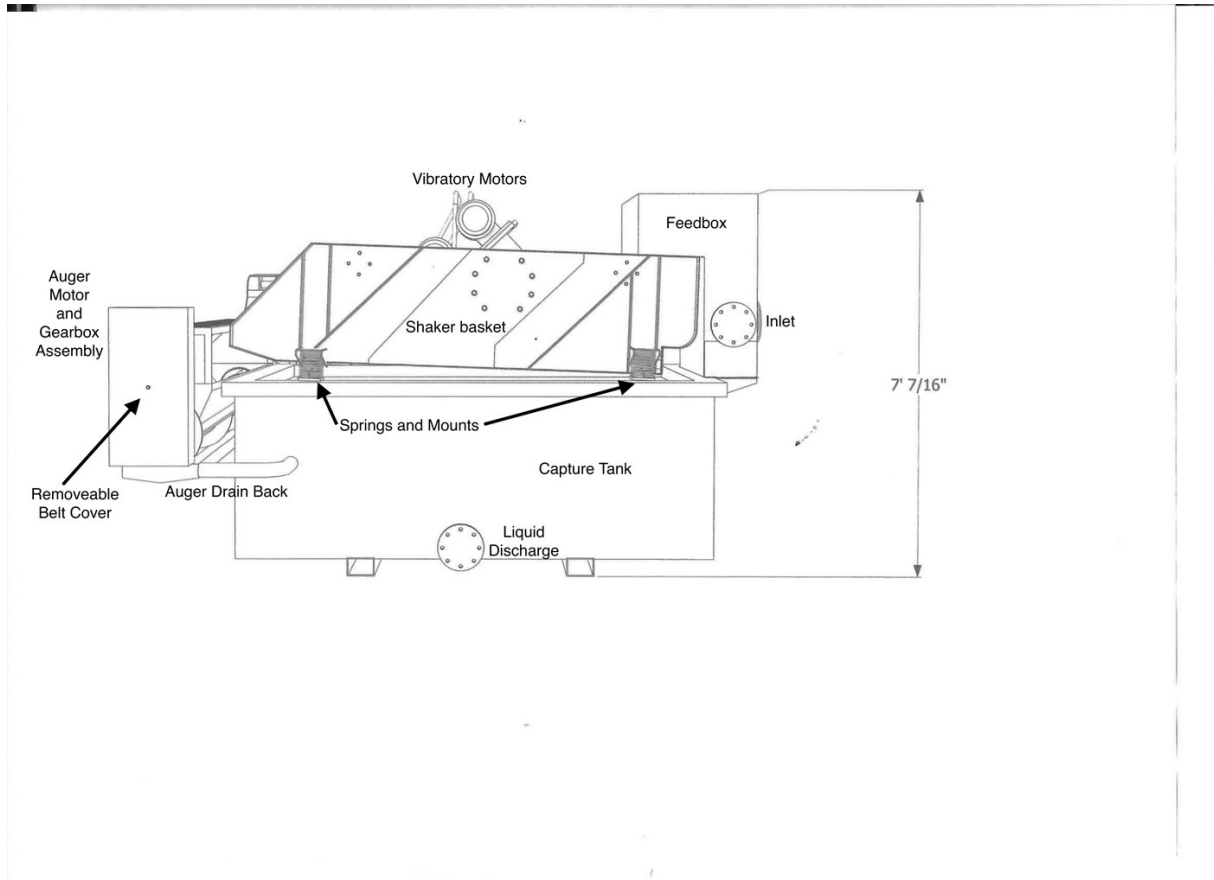


Figure 7 – Full Unit Isometric Overview

3D isometric view showing the complete unit assembly including feed box, electric control panel, shaker basket, capture tank, springs, and auger/extruder assembly.

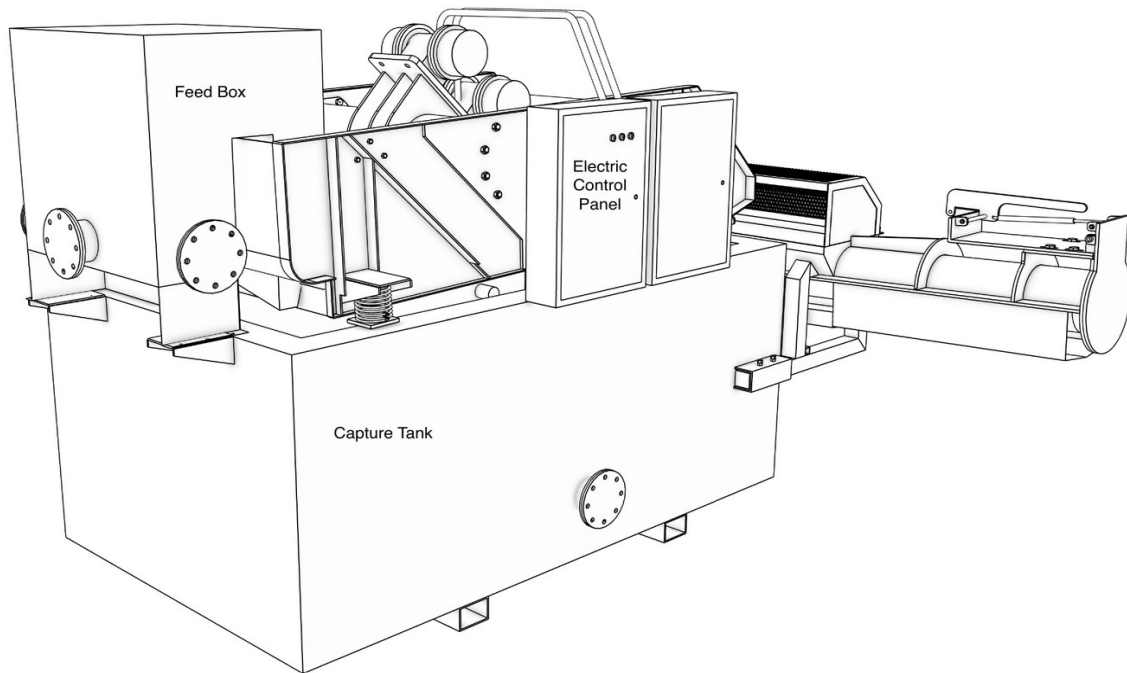
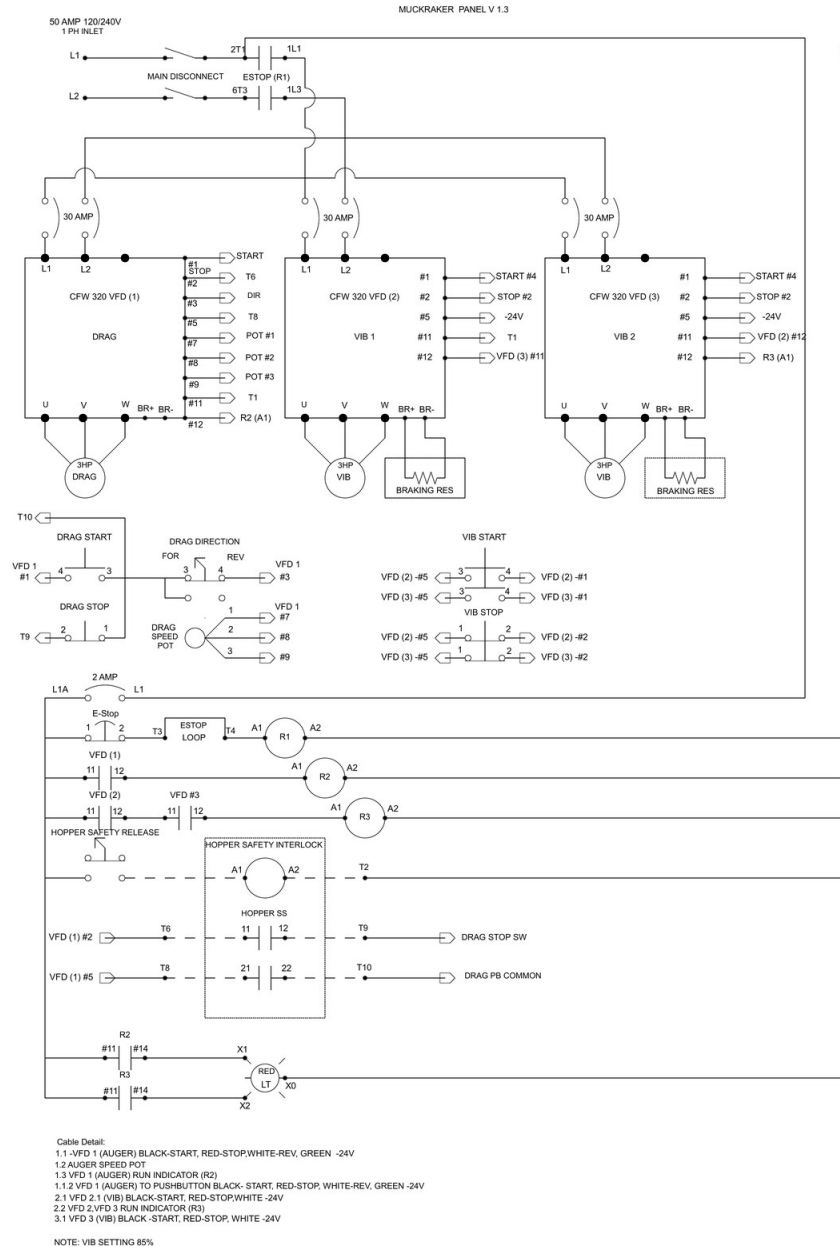


Figure 8 – Electrical Control Panel Schematic (Panel V1.3)

50-amp 120/240V single-phase panel schematic showing the three CFW 320 VFDs (drag/auger plus two vibratory motors), 30-amp branch breakers, e-stop loop, hopper safety interlock and release circuit, braking resistors, and all cable details. VIB motors preset at 85% G-force.



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NOTICE Additional diagrams including exploded parts views and parts ordering reference list with part numbers will be added as they become available. Contact VibraWaste at 479-425-1307 or info@vibrawaste.com to order parts.