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SEM Models 0300/0315 Operation and Maintenance Manual



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This manual covers all Model 0300, Model 0303, Model 0315 configurations

For service, parts, and customer support, contact us:

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SEM Model 0300/0315 HDD Shredder



SEM Model 0300/0315 HDD/SSD Combo Shredder

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Safety

Read and understand instruction manual and be aware of all warning stickers.

Make sure that all guards and access panels are in place at all times, EXCEPT when the power is locked off for maintenance work or cleaning.

Always know where emergency stop buttons are located.

Always know or have quick access to emergency phone numbers.

Always ensure that all maintenance and operating personnel read and understand this manual, including those personnel working second or third shift.

Always have a standard break-in time for a new operator. A minimum of two hours is suggested.

Always wear safety glasses when operating shredder.

Always lock-out power at the disconnect when shredder is not in use, when servicing shredder, or when performing routine shredder maintenance. This includes cleaning.

Never operate this or any other machine while under the influence of drugs, alcohol, or medications.

Never wear loose fitting clothing, ties, or jewelry while in the vicinity of this shredder.

Never allow long hair to be in the vicinity of the machine without use of a protective hair net.

Never place any part of your body in or on any part of the machine while in operation.

Never remove guards, perform maintenance, or clear jam up debris without first locking out power disconnect.

Never bypass or interfere with any safety limit switches or guards. They are safety devices and serious injury can result if bypassed.

Never allow minors to operate the machine.

Always follow proper PPE and LOTO.

NOTE: The chute is intended for the destruction of SSD media ONLY. Attempting to shred rotational drives in the SSD chute could cause catastrophic damage to the unit and will void the warranty.

About Your Shredder

For information about other cutting head configurations and features, such as .375 SSD, or .75 HDD shred widths contact SEM customer care.

The maintenance and operation information in this manual is also applicable to the model 0303 with serial numbers beginning with 26, and most units preceding that. Contact SEM Customer Care for electrical information or any questions about your device.

Overview and Intended Use — 0300

The SEM Model 0300 hard drive shredder is capable of destroying standard commercial hard drives, as well as tapes and other electronic media.

Size and weight: When fully assembled, the SEM Model 0300 is approximately 43" (109 cm) tall x 45" (114 cm) wide x 20.5" (52 cm) deep (HxWxD) and weighs approximately 1,200 lbs. (550 kg).

Configurations: This unit is only available in a 1.5" width HDD cutting head.

Voltages: This unit is available in 120V/1-Phase/60Hz /16A with international voltages available on request.

Media and throughput: The SEM Model 0300 is designed to handle standard hard drives. It is capable of destroying up to 500 standard rotational drives per hour at DIN 66399 Level H-4. Note: remove all rails from drives before shredding.

Overview and Intended Use – 0315

The SEM Model 0315 hard drive/solid state media shredder is capable of destroying enterprise and standard commercial hard drives, solid state enterprise and commercial drives, as well as tapes, phones, and various other forms of electronic media depending on the cutting head configuration chosen at purchase. This unit was specifically designed to destroy enterprise drives. Do not use both feed chutes at the same time as doing so may damage the unit and will void the warranty.

Size and weight: When fully assembled, the SEM Model 0315 is approximately 43" (109 cm) tall x 48-54" (122-137 cm) wide x 20.5" (52 cm) deep without a conveyor (HxWxD) and weighs approximately 1550 lbs (550 kg).

Configurations: This unit is available in a 1.5" width HDD cutting head or with a .375"/1.5" SSD/HDD combo cutting head.

Voltages: This unit is available in the following voltages:

Voltage/Phase/ Frequency	Full Load Amps (FLA) [with AFS]
120 / 1 / 60	20 [21]
230 / 1 / 60	10 [11]
220 / 1 / 50	14 [15]
208 / 3 / 60	6.6 [7.5]
230 / 3 / 60	6 [6.9]
460 / 3 / 60	3 [3.9]
380-415 / 3 / 50	3.3 [4.2]

Media and throughput: The SEM Model 0315 is designed to handle enterprise hard drives and solid state drives. It is capable of destroying approximately 90 enterprise or 350 standard rotational or solid state drives per hour at DIN 66399 Level H-4 (for HDDs) / E-3 (for SSDs).

Unacceptable Media

Batteries and capacitors should never be destroyed using this machine. Both can be found inside of cell phones, tablets, etc. Destruction of batteries could lead to safety hazards and cause damage to the machine. All batteries must be removed prior to destruction.

Note: Some rotational hard drives which may require additional disassembly before shredding. Disassemble drives that have thick steel parts or multiple steel plates covering platters as they may cause jams or accelerated wear.

Uncrating and Installation

Your new SEM shredder has been secured to a pallet for shipping. Please inspect equipment immediately for shipping damage.

Important note: Prior to and after unpacking, check for any damage to the packaging or unit on the Bill of Lading and contact customer service and the shipping party by phone immediately.

- Retain packaging for 90 days.
- Using a lift truck with a minimum capacity of 2,500 lbs. (crated device weighs 1,750 lbs.), remove the machine from the carrier and transport to operation site. Remove pallet and discard responsibly.
- SEM shredders are equipped with casters for ease of handling.
- Inspect the machine for any damages prior to installation and operation. Check the oil level and check for any oil leaks.
- After inspection, make certain that all guards and safety devices are installed properly.
- If an optional discharge conveyor was ordered with your machine, then you must install it before beginning to shred.
- Be sure belt is tracking properly after installation.

Uncrating

- Remove sides of crate – hammer and pry bar
- Cut straps holding device – strap cutters
- Remove the device from the pallet and bring as close to installation point as possible – lift truck

Tools and PPE needed:

- Lift truck with a minimum lifting capacity of 2,500 lbs.
- Pry bar and hammer
- Power drill with Phillips head bit
- Gloves and safety eyewear
- Strap cutters

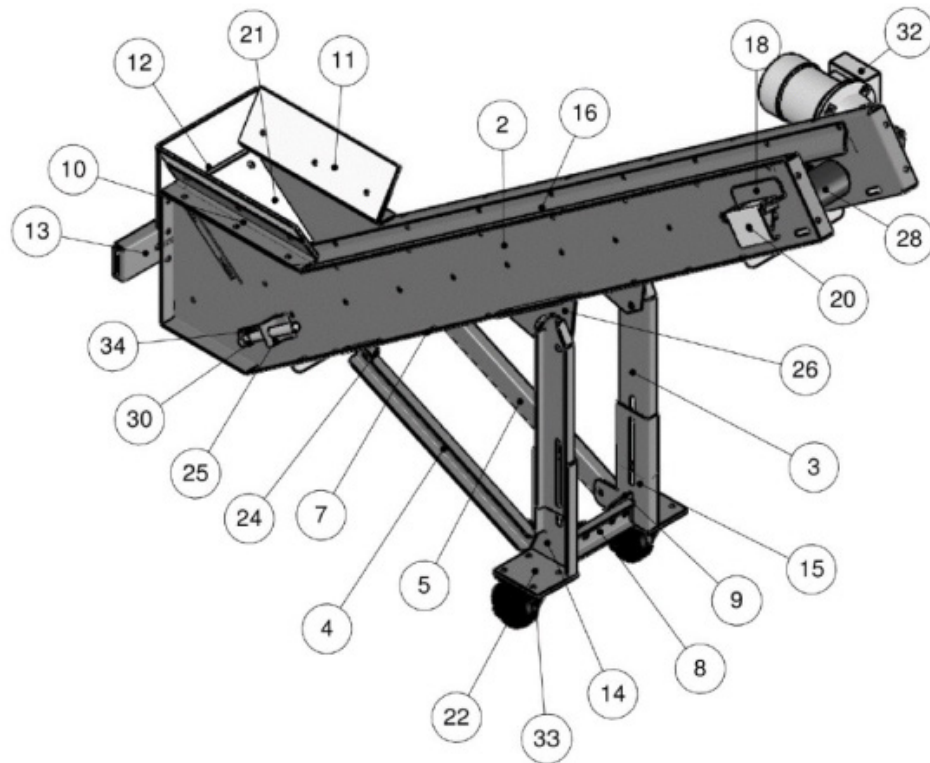
General Installation

Note: These units are top heavy. Use care when moving them and stay clear if they begin to tip. It is recommended to move the unit as close to the installation unit as possible using a fork lift, particularly if it requires traversing uneven surfaces.

- This unit may be installed in an office or warehouse setting within six feet of an appropriate electrical receptacle
- Keep the left side of the unit at least 12 inches from any walls or obstructions for proper ventilation.
- **Transport:** This device is equipped with casters for ease of handling after the device is lifted off of the pallet. Ensure casters are unlocked and push only on flat surfaces. DO NOT push the device on inclined or declined surfaces as control of the device may be lost and injury may occur.
- **Storage:** If the device requires storage, it may be stored in its shipping crate or unpackaged. If unpackaged, ensure that the caster locks are engaged to prevent unwanted movement of device.
- **Check the bins:** Check in the bins inside the unit for keys, electrical schematic, and other related paperwork.

Modular Output Conveyor

- **(See image on page 7)** If the optional modular conveyor was purchased, unpack and inspect it for any damage. This item must be ordered at time of purchase and cannot be added retroactively.
- After shredder is in position, remove the four bolts that hold the access panel on the back of the shredder.
- Go to front of the shredder, open the access door beneath the cutting chamber and remove the two bolts that are partially threaded in holes in the side plates. (See image on page 7).
- Move the modular conveyor to the back of the shredder and slide it into the access panel opening. Plug it in to the provided receptacle.
- Go to the front of the shredder and replace the two bolts through the channel that is on the conveyor to secure the conveyor to the shredder.
- Electrical schematic including conveyor outlet available upon request - contact SEM customer service.



ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
1	1	CONVEYOR SIDE FRAME OPP	18	1	BEARING MOUNT ANGLE
2	1	CONVEYOR SIDE FRAME	19	1	BEARING MOUNT ANGLE
3	2	CONVEYOR LEG	20	1	DRIVE SHAFT GUARD
4	1	CROSSMEMBER	21	1	END GUARD UHMW COVER
5	1	CROSSMEMBER OPP	22	2	CASTER PAD
6	1	CONVEYOR BED	23	1	END GUARD
7	1	BOTTOM GUARD	24	2	PIVOT BRACKET
8	1	FOOT CROSSMEMBER	25	2	TAKE UP ANGLE
9	2	FOOT CROSSMEMBER MOUNT	26	2	LEG MOUNT BRACKET
10	2	SIDE SLIDE HOLDER BRACKET	27	1	DRIVE SHAFT
11	2	ANGLED SIDE SLIDE	28	1	DRIVE PULLEY
12	1	VERTICAL END GUARD	29	1	TAIL PULLEY
13	1	CONVEYOR MOUNT BRACKET	30	1	TAIL SHAFT
14	1	FOOT OPPOSITE	31	2	PILLOWBLOCK BEARINGS
15	1	FOOT	32	1	GEAR MOTOR
16	1	BELT SIDE GUIDE	33	2	CASTERS
17	1	BELT SIDE GUIDE OPP	34	2	TAKE UP WELDMENT

Electrical

(Refer to licensed electrician)

- Be sure to follow proper Lock Out Tag Out (LOTO) procedures.
- All electrical installation and service must be done by a qualified electrician. Follow all national and local electrical codes and ordinances.
- All internal wiring has been factory installed and tested prior to shipping. Electrical installation consists of providing adequate machine power only.
- Check building service to ensure correct voltage is available and that the electrical current requirements can be met.
- Motor rotation: Ensure area is clear, then turn the key switch on. Check for proper motor rotation by feeding a single drive into the appropriate chute. If it does not take, then the motor rotation is wrong. A licensed electrician can fix this.
- A customer-supplied disconnect throw switch should be mounted on a wall within one to two feet of the device.
- Electrical installation is complete. Replace all guards and safety devices.
- SEM recommends no more than a 3% drop in line voltage while under load.

0315 Electrical Only

Voltage/Phase/ Frequency	Full Load Amps (FLA) (w/ AFS)	Apparent Power kVA (Line to line) (w/ AFS)	Recommended Disconnect
120/1/60	20 (21)	2.4 (2.5)	30A
230/1/60	10 (11)	2.3 (2.5)	30A
220/1/50	14 (15)	3.1 (3.3)	30A
208/3/60	6.6 (7.5)	2.4 (2.7)	30A
230/3/60	6 (6.9)	2.4 (2.7)	30A
460/3/60	3 (3.9)	2.4 (3.1)	30A
380-415/3/50	3.3 (4.2)	2.3 (2.9)	30A

Operation

Pre-Start Up

- Familiarize yourself with all controls and button locations.
- Ensure that all guards and covers are in place.

A certified SEM service technician is available over the phone or on site for startup instruction and training. Contact SEM customer service for details and have your serial number available: service@semshred.com.

Controls

- **Start:** Activates the cutting chamber.
- **Reverse:** Reverses the rotation of the cutting chamber, button must be held down. Unit will auto reverse if jammed.
- **Stop:** Deactivates the cutting chamber and stops the unit.
- **Filter** (*premium upgrade only*): Activates air filtration system. Button will stay depressed.
- **Reset:** Resets the unit after a jam.
- **Bin Full:** (*Premium upgrade only*): Indicator light will illuminate when either bin is full.
- **Key Switch:** Used to turn on device or immediately shut down device. Located on the left side of the device above the current relay panel.
- **Hour Meter:** Displays the number of hours the device has been running. Located on the left side of the device above the current relay panel.
- **E-Stop:** Required on CE Units. Replaces key switch turn key to unlock. Do not leave key in the E-Stop or use as a stop button or power switch.



Start Up & Operation

PPE: SEM recommends wearing safety glasses, gloves and a dust mask while operating this device: however, each individual site should determine their own PPE requirements.

New Operators: New operators should be given a minimum 2-3 hour training period, beginning with a slow feed rate. The operator will soon be able to judge how quickly they can feed the shredder.

Procedure:

- Insert key into the key switch or E-Stop and turn clockwise to activate.
- If equipped, place the chute block over whichever chute is not being used.
- Press the **START** button.
- Press the **FILTER** button. If filter button is not depressed, it will turn on automatically the next time the unit is started.
- Begin shredding material.
- Wait for the drive to be fully shredded before feeding the next drive.
- Do not use both feed chutes at the same time.
- Reference “about your shredder” section for details about what can and can’t be fed into the machine.
- **Bin Full:** The bin full light triggers when the weight of material inside is approximately 20 lbs. When shredding tapes, be sure to check the bin more frequently as the bin full light may not illuminate.

Clearing a Jam

- In the event of a jam, the cutting head will automatically reverse and attempt to shred the media up to five times.
- Upon failure, the **RESET** button will illuminate after reversing again.
- **De-energize the unit using proper LOTO procedures.**
- To access the cutting chamber, remove the two screws at the front of the unit on the feed chute cover and lift it up to gain access, using a 5/32” Allen wrench.
- Manually remove the jammed material and replace the screws in the feed chute.
- Re-energize the unit and resume shredding.

Shutdown Procedure

- Allow cutting chamber to clear all material before shutting down.
- Press the **STOP** button.
- Turn the key-switch to the **OFF** position.
- Turn off the disconnect switch and/or unplug the power cord from the receptacle.
- Proceed to maintenance.

Maintenance

Maintenance Schedule

Always de-energize the unit using proper LOTO procedures before cleaning, lubricating, maintaining, removing any guards and after shredding operation is complete.

SEM recommends wearing safety glasses and cut resistant gloves while performing any maintenance on this unit: however, individual sites should determine their own PPE.

Tools:

- 5/32", 3/16" Allen wrench
- Flathead screwdriver
- Long needle-nose pliers

Every 20-30 hours

- Remove debris and any magnets that have built up on cutters and combers (use a screwdriver or needle-nose pliers).
- Visually inspect cutters for damage and clear air inlet.
- Apply light machine oil (WD40 or equivalent) to cutters.
- Remove debris buildup from beneath the plates the bins sit on.
- Wipe entire machine clean being careful to observe any evidence of oil leaks. Should leakage be observed, bring to the attention of maintenance personnel or SEM customer service.
- Change pre-filter.
- Clean HEPA filter.

Every 60-80 hours

- Replace HEPA filter.
- Check reducer oil level.
- Remove back panel and apply Spray-On # S00201 to rear spur gear. Spray for 3-5 seconds. Let machine run in forward for two minutes after reinstalling back panel. See picture on page 17 for spray location.

Filter Change

The optional air filtration system on this unit is designed to help reduce possible odors and contaminants from escaping into the atmosphere during the destruction process. This system requires periodic inspection, occasional cleaning, and filter changes.

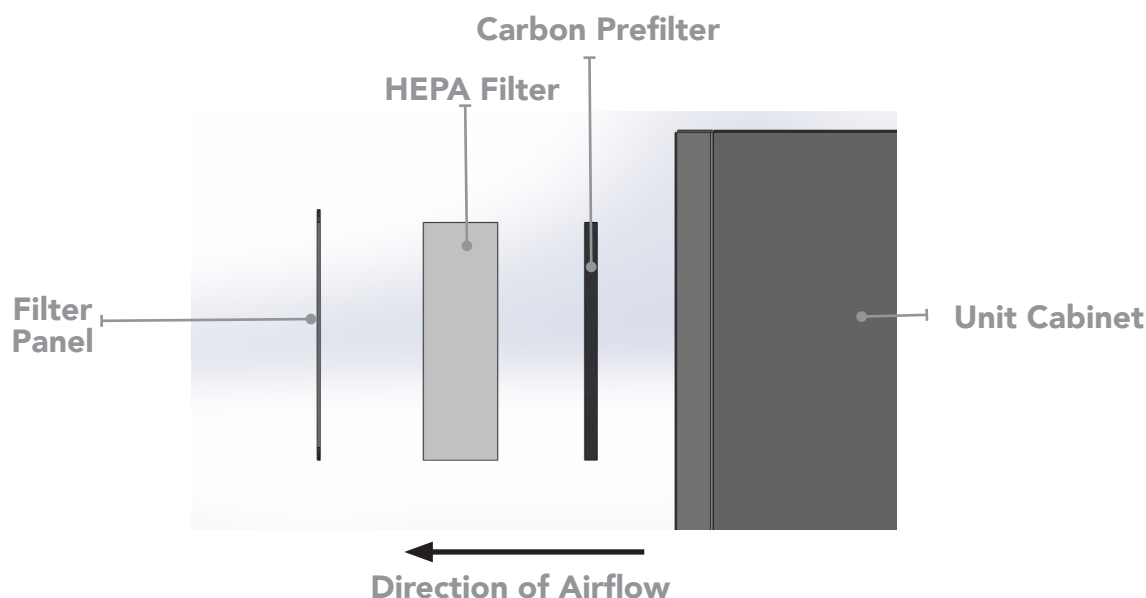
Change prefilter every 20-30 hours. Prefilter should be changed 4-6 times per year depending on use.

Clean HEPA filter every 20-30 hours.

Change HEPA filter every 60-80 hours. HEPA filter should be changed yearly depending on use and prefilter upkeep.

Note: Filter and prefilter change times are recommendations only. They may need to be changed more or less frequently depending on the amount and types of media destroyed.

The filter cover panel can be found on the left side of the unit at the base. See the general assembly drawing section. Panel access requires 5/32" Allen wrench.



Current Relay Adjustment

Tools and PPE Required:

- 5/32" Allen wrench
- Small Philips head screwdriver

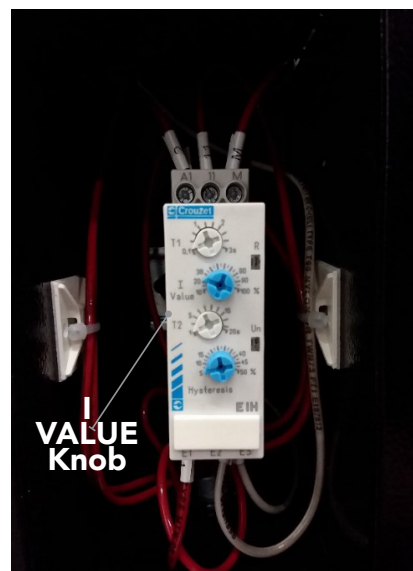
About the Current Relay: This device is designed to automatically reverse if it jams while shredding. The electrical current relay controls this feature and is preset by the factory prior to shipping. However, power variations can cause the device to jam and not reverse. To correct this problem, the current relay may require a small adjustment.

Note: Older units may use an orange current relay with two knobs, if this is the case treat the "threshold" knob as the "I-Value" knob.

Accessing and Adjusting:

Note: Press the **STOP** pushbutton before making any changes to the current relay.

- The power does not need to be off for this adjustment.
- Remove cover on left side of device below the hour meter to expose current relay.
- Turn the knob labeled **I VALUE** clockwise to the next tick mark.
- Test by running a drive through the device.
- **Important Note:** If the device does not automatically reverse after three adjustments, check the incoming power and voltage drop. This may require an electrician to verify.



Warning: Over adjustment can cause the overload to trip, which will not allow the device to start until the overload is reset. The overload will automatically reset once it has cooled down. This may take several minutes.

General Assembly Drawings



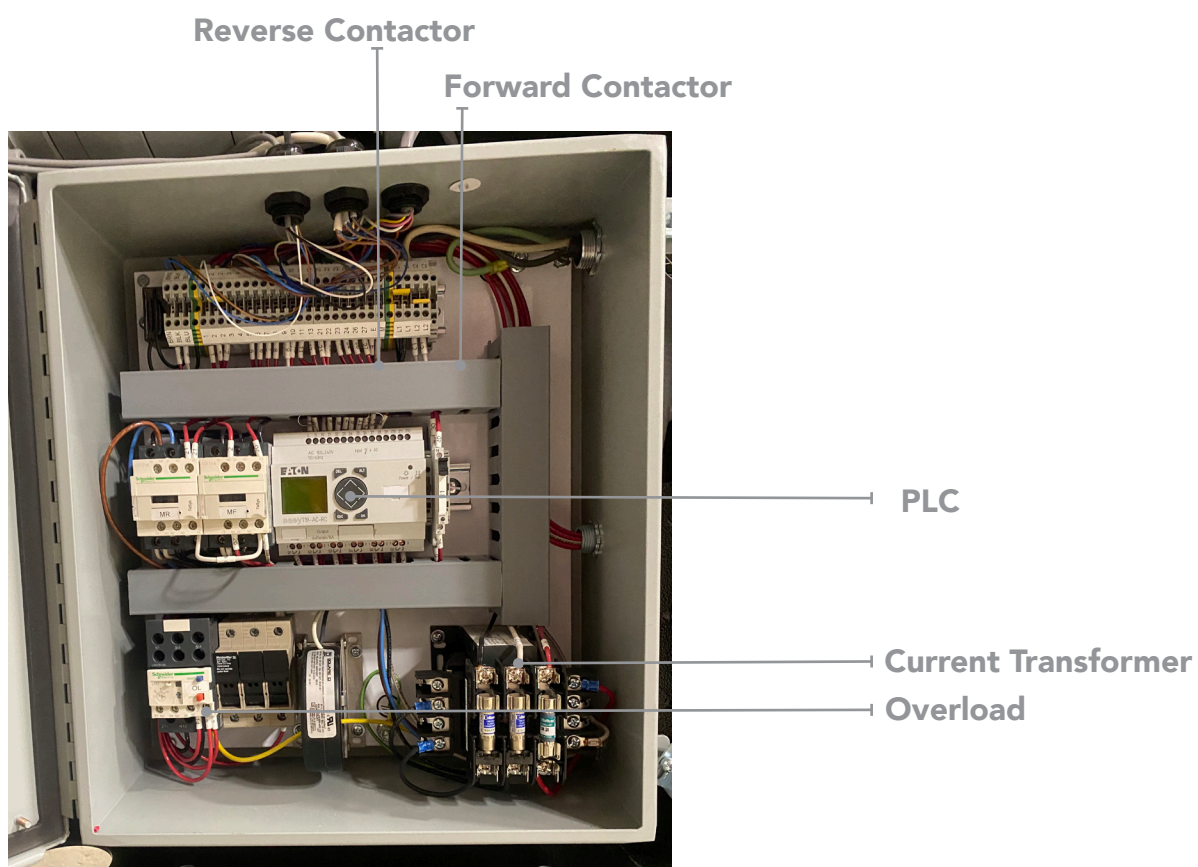
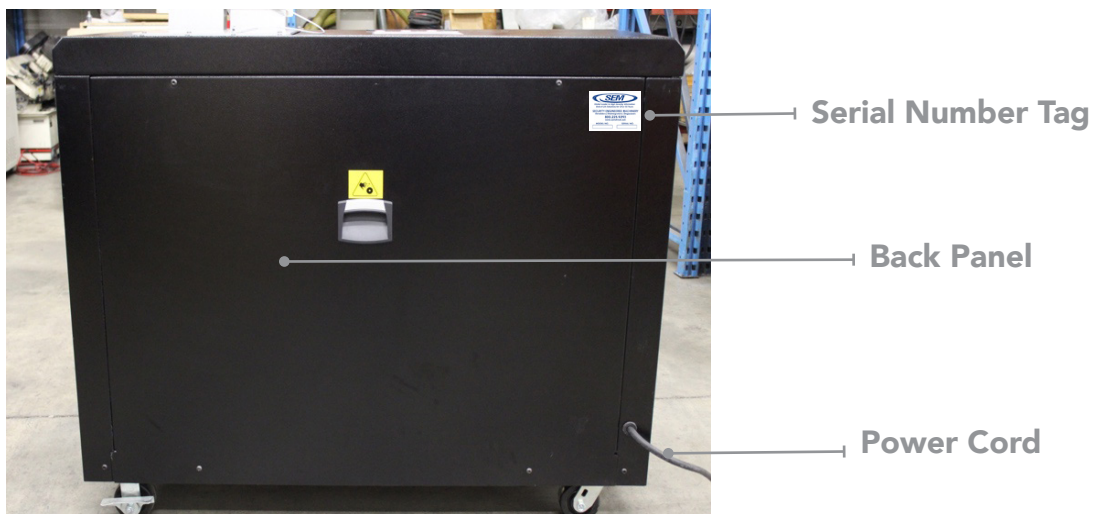


Hour Meter

Key Switch/
E-Stop

Current Relay Panel
(Left Side)

Filter Access Panel
(Left side)



Spur Gear Spray Location



Options and Spare Parts

Below is a list of spare parts and extras offered for the Model 0315/0300:

Description	MPN
Replacement HEPA Filter	HF-2SSD
Replacement Carbon Pre-Filter	CF-2SSD
Combo Cart Tipper/Steel Sort Table	CT-5000
4 Gallon Dual Stage Vacuum w/ HEPA	9272410
Bags for Vacuum (2 pack)	9196400
Replacement Vacuum Filter	9034100
Toolkit for 0300 Series Shredders	553TK0300
Metal Waste Collection Bin	Contact Customer Care

Preventative maintenance contracts and extended warranties available at purchase. For service, parts or any questions regarding your SEM shredder, contact SEM customer service.

Troubleshooting

Warning: LOCK OUT POWER before performing any cleaning, lubrication, maintenance, or troubleshooting.

Problem	Cause	Solution
Machine will not run in forward or reverse	No power	Check power supply
	Key-switch off/E-stop engaged	Turn on
	STOP button stuck in	Check buttons
Overload tripping	Motor overheating	Check motor cooling fan for objects obstructing air flow
	Dirty or unlubricated cutting head	Thoroughly clean and lubricate machine
	Low voltage/voltage drop >3%	Check voltage at power supply
Shred capacity low	Unlubricated cutting head	Clean and lubricate cutting head
	Low voltage / voltage drop >3%	Check voltage at power supply
	Current relay set too low	See maintenance section, contact factory



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