



PARTS - SERVICE - ACCESSORIES
certainteedmachineworks.com
863.294.3206 / 800.237.7841

PLEASE READ THIS MANUAL
BEFORE PLACING YOUR NEW
VOLU-MATIC® 100 INSULATION
BLOWING MACHINE INTO SERVICE

Operation Manual & Safety Information

Volu-Matic® 100

Warning & Notes

Warning

Carbon monoxide poisoning from engine exhaust can be fatal. Make sure exhaust is routed away from air intake flanges and that the truck body is well ventilated.

Warning

Do not smoke when refueling the tank or operating the machine. Fumes from fuel are explosive and can be fatal. Follow all safety precautions when handling any type of fuel.

Warning

Recommended hose size, type, and length must be used to achieve maximum results. CertainTeed Machine Works cannot guarantee performance of the **Volu-Matic® 100** machine if hoses are undersized, worn, damaged, or hoses other than those we recommend are used.

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Specifications

Model Available:

Gasoline Engine Driven Insulation Blowing Machine

- Kohler Gasoline Engine - 14 HP single cylinder air cooled

All Machines:

10" airlock, air volume control system, positive displacement blower, electro-magnetic clutches.

Height: 68"

Load Height: 54"

Length: 54"

Width: 46.5"

Weight: 850 lbs

Electrical: 12V DC

Maximum Feed Rates For Correct Product Coverage:

Cellulose: 15 - 20 pounds per minute

Fiberglass: 11 - 15 pounds per minute

Rockwool: 16 - 22 pounds per minute

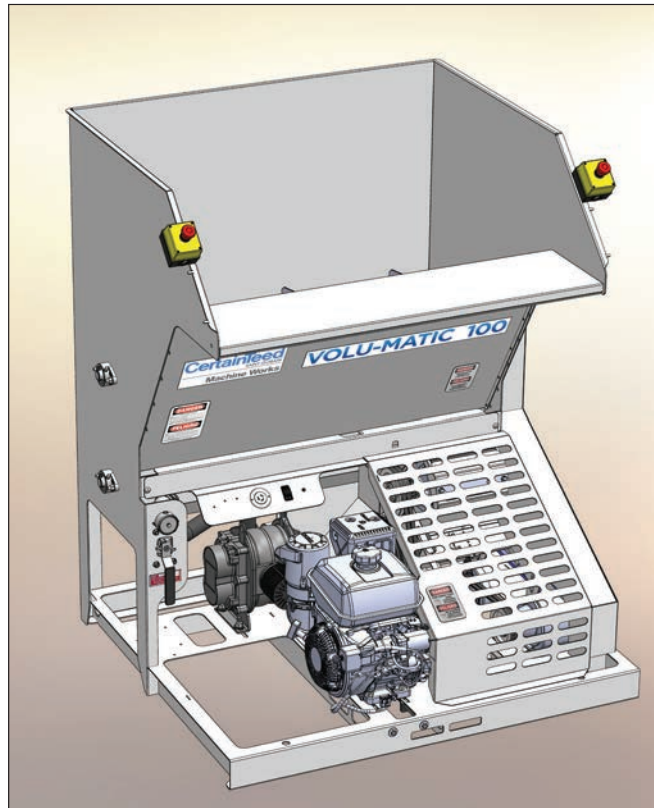
P/N	DESCRIPTION	QUANTITY
210471 ACC/HOSE PACKAGE (Not Included)		
162885	MARK II CLEAR HOSE 3" X 50'	3 EA
210991	HOSE SLEEVE, 3"	2 EA
162482	2.5"-3" WORM DRIVE HOSE CLAMP	6 EA
210977	V100 AIR INTAKE/EXHAUST KIT	1 EA

Introduction

Several safety features are on the **Volu-Matic® 100** machine to ensure operator safety. Study the safety section thoroughly so that all the features concerning safety are understood.

This introduction is presented to provide a basic description of the function and purpose of the **Volu-Matic 100** machine.

The **Volu-Matic 100** machine is principally designed to blow insulating materials into attics of residential and commercial buildings, and can also be configured to blow side walls. The insulation material manufacturer's instructions prevail when it comes to installing their product, since they guarantee the final results.



Volu-Matic® 100

The **Volu-Matic 100** machine is normally mounted in the back of a contractor's truck or trailer and is powered by a small industrial engine. The belt driven power train that drives all machine mechanisms, includes electro-magnetic clutches that provide separate control of various functions on the machine. To allow the person installing the insulation full control of the machine, a 12-volt electrical remote control system is provided, which operates either through the provided hard wire remote cord and toggle switch, or with an optional wireless remote control unit. The **Volu-Matic 100** controls provide independent control of both the air that blows the material down the hose to its destination, and the machine mechanisms that condition and feed the insulating material into that air stream.

The 12-volt electrical circuit is powered by the machine's small industrial engine. The electrical control circuit is protected with a 20 amp circuit breaker. A light illuminates when the master switch is turned on, indicating that power is on for both the blower relay and remote control receptacle. When the remote cord switch is moved toward the cord, power is sent through the emergency stop buttons to the blower relay, causing the blower clutch to engage. When the remote cord switch is moved toward the end of the housing, power flows to the blower and mechanism relays, causing both clutches to engage. The toggle switch in the remote cord housing is labeled to identify these machine functions. The switches on the optional wireless remote control unit are labeled on the transmitter to identify these machine functions.

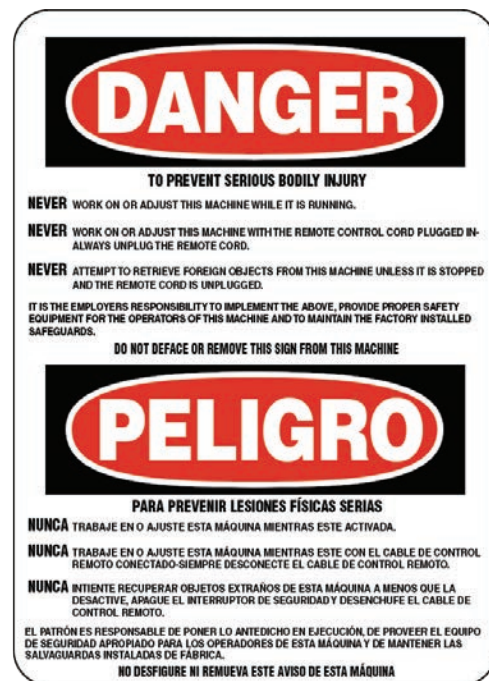
The hopper area where material is deposited into the machine has a circulator to open and stir the material, and an auger at the bottom for material feed. Material exits the auger and is conditioned by the shredder before entering the airlock feeder. The airlock feeder deposits the insulating material into the air stream where it enters the hose and flows to the hose exit.

Another feature on the **Volu-Matic 100** machine is a slide gate that when adjusted, is used to control both feed rate and material conditioning. Air volume is controlled independently with a manually operated valve, to help optimize material coverage.

Safety

The **Volu-Matic® 100** insulation blowing machine has full guarding and electrical disconnects for your safety. Every **Volu-Matic 100** machine has this warning displayed in a prominent place. **Do not remove, modify, or deface the warning label!**

WARNING: if any foreign object should enter the machine; push an emergency stop button in (off), turn off the master switch, unplug the remote control cord, and shut the machine engine or power source down before retrieving the object. Never reach into the machine while it is operating.



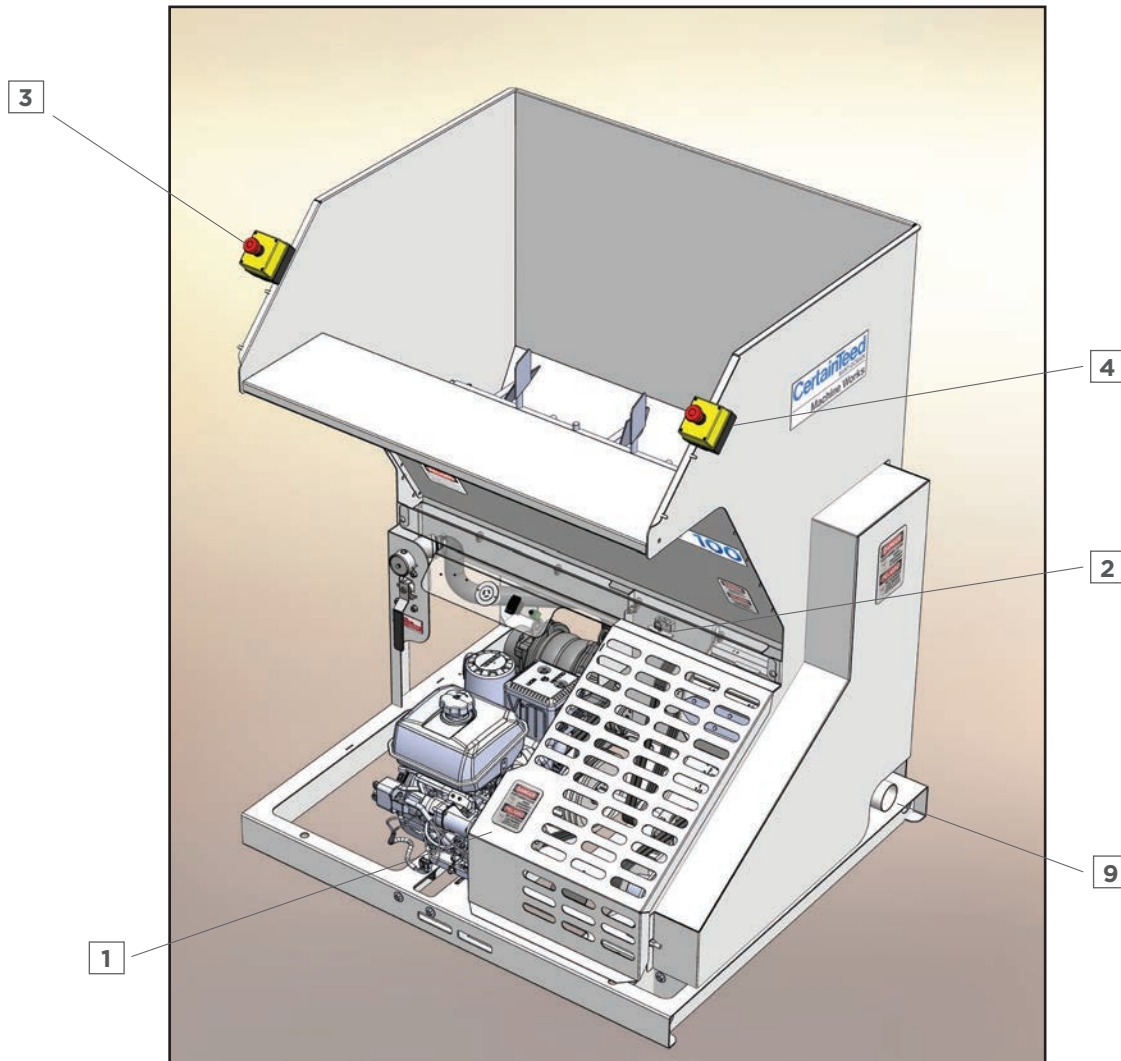
Other warning signs, caution signs, and danger signs are displayed so that the operator is aware of other hazards associated with the use of the machine. You will see the following warnings on the machine. **Do not remove, modify, or deface the warning labels!**



The purpose of this sign is to make the operator aware that they may lose balance and fall.



All **Volu-Matic® 100** machines are factory equipped with side, front, and rear guards. The top of the machine does not require guarding when correctly mounted in the contractor's truck or trailer. If the machine is installed so that the top is exposed, such as in a manufacturing plant, or in an open top trailer installation, a top guard will have to be equipped.



The front guard **1** is designed to hinge up for access to your machine for maintenance and troubleshooting. This guard must never be opened while your **Volu-Matic® 100** machine is in operation - there are shafts under the guard, which are still rotating. If this guard is opened, a safety switch **2** is mounted to the guard which will stop the engine. If the engine does not shut off or stop when the guard is lifted up, you should request that maintenance be performed on the safety system. You will have to restart the engine after the guard is closed for machine operation. If the safety switch or guard should become damaged, replace them, to ensure safety while operating your **Volu-Matic 100** machine.

There are two emergency stop buttons **3 & 4** that will completely shut the engine down.

Either red button will stop the engine when pushed in (off) overriding all other controls. If the mechanisms do not shut off or stop when either button is pushed request that maintenance be performed on the safety system. The emergency stops must be twisted out (on) for normal operation. Knowledge of the location and function of these emergency stops is emphasized.

These buttons should be used for any of the following type of emergencies:

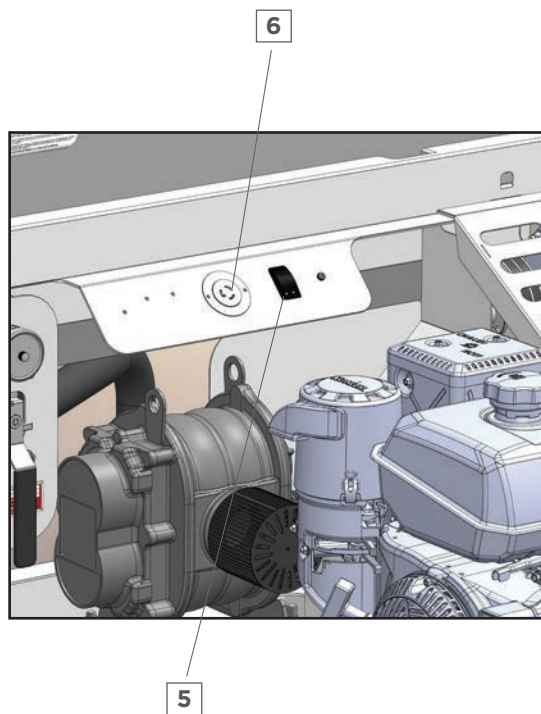
- unauthorized individual getting too close to the machine.
- objects falling into machine.
- a machine component breaks.
- a material hose becomes disconnected.
- anything requiring immediate stopping of the machine.

You will have to restart the engine after the emergency stop buttons are twisted out (on) for machine operation. If any safety switch should become damaged, replace it; keep your machine safe.

During machine operation, always turn off the "rocker type" master switch **5** (light indicates switch is on), unplug the remote cord from the receptacle **6**, and shut the engine down before removing any guards for any reason!

During machine operation, always stand on the floor to deposit material into the hopper. Under no circumstances should your hand, arm, stick, or broom be used to move or force material down into the hopper. The **Volu-Matic 100** machine is a self-feeding design requiring no outside assistance for smooth flow.

Operators should wear hearing protection if the machine noise makes them uncomfortable or noise levels exceed acceptable standards. CertainTeed Machine Works recommends that the operator wear an "approved" dust mask or respirator for their protection. Safety features are incorporated into the **Volu-Matic 100** machine to protect everyone from serious injury. Operate your machine according to the outlined instructions in this manual with all safety features in place and working properly. Operating the machine in an unsafe manner can result in serious injury or death.



Operation



Preliminary Checks

1. Check the following table for the proper hose size, type, and length for a particular operation. All hose couplings must be thin wall, 1/16 inch maximum, to minimize restrictions. Thin wall couplings can be purchased from CertainTeed Machine Works.

OPERATION	MATERIAL	HOSE DIAMETER	HOSE LENGTH
Open Blow	Cellulose Fiberglass Rockwool	3"	150' Minimum
Side Wall	Cellulose Fiberglass Rockwool	Reduce end of hose to 2-1/2"	150' Minimum

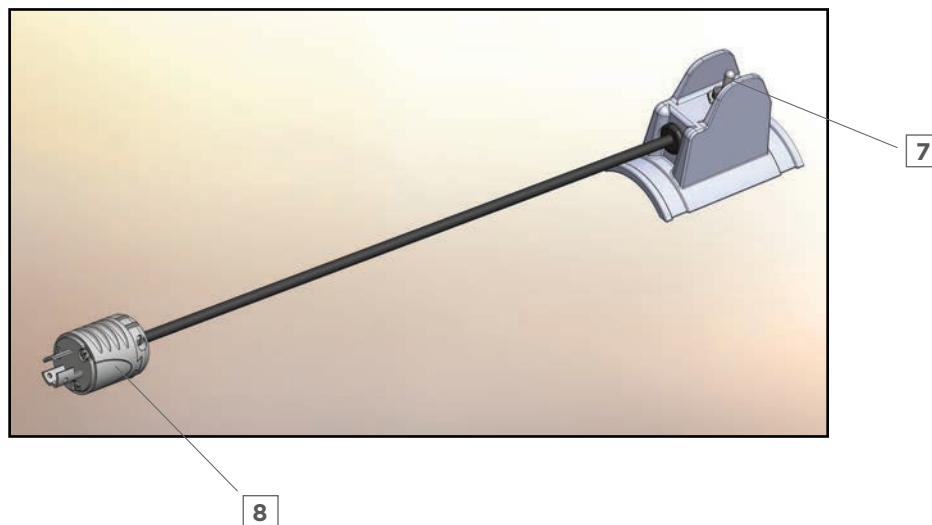
Note: Follow fiber manufacturer instructions for hose setup

2. Make sure hopper is free of foreign materials.
3. Check for presence of oil from the engine, blower, and gearbox indicating a leak. Look in the service manual for proper levels and type of oil to use in each component.
4. Check material conditioning slide gate and air bleed control valve position. Check the recommended start settings chart for proper position.
5. Make sure all guards are in place and securely latched.

WARNING: always operate your machine with the truck or trailer sitting on a level surface. Operating the machine when it is not level will lead to failure of some machine components. The oil level in the engine, blower, and gearbox may not lubricate internal parts properly when the truck or trailer is sitting on an incline.

Preliminary Start-Up Checks

1. Make sure hopper is free of foreign materials.
2. Clear the area in front of the airlock feeder outlet for testing.
3. Move the toggle switch **7** to the center (off) position and plug the remote cord **8** shipped with newly delivered machines into the receptacle
4. Twist emergency stop buttons **3 & 4** out (on) for operation. This is a twist lock connection.
5. Start the engine in accordance with manufacturer's literature and increase engine speed until the throttle is at full stroke. The engine will run 3600 rpm.
6. Turn on the master switch **5** light indicates the switch is on.
7. Cycle the toggle switch in the remote cord housing toward the cord and the blower will come on, check that air does exit the airlock feeder outlet. With the blower operating satisfactorily, cycle the switch toward the end of the housing and the blower and machine mechanisms will operate simultaneously.
8. Take some time to get to know the **Volu-Matic® 100** machine. Engage and disengage the remote cord noticing the drives start and stop. With machine running, push one emergency stop button and check that the engine stops. Twist emergency stop button out, restart the engine and start the machine again. Push in the other emergency stop button and check that the engine stops. If the remote toggle switch was cycled off, then cycle the toggle switch for the drives to come on once the engine is restarted. Repeat the process opening the front guard.
9. For any problems encountered during preliminary start-up procedures, check the troubleshooting section or call CertainTeed Machine Works, 800-237-7841



WARNING: If at any time the drives do not stop when an emergency stop button is pushed in (off), request that maintenance be performed on the safety system.

Volu-Matic® 100 Recommended Start Settings Chart

OPERATION	MATERIAL	SLIDE GATE	AIR BLEED PRESSURE
Open Blow	Cellulose	6"	2.0—3.5 psi
	Fiberglass	6"	2.0—3.5 psi
	Rockwool	5"	4.5—5.5 psi
Side Wall	Cellulose	5"	1.0—2.5 psi
	Fiberglass	5"	1.0—2.5 psi
	Rockwool	4"	1.5—1.75 psi

Note: Use these settings as a starting guide only. Variations between materials of the same type and variations between batches from the same manufacturer may require different settings than those suggested. Remember, the material manufacturer's instructions prevail since they guarantee the final results.

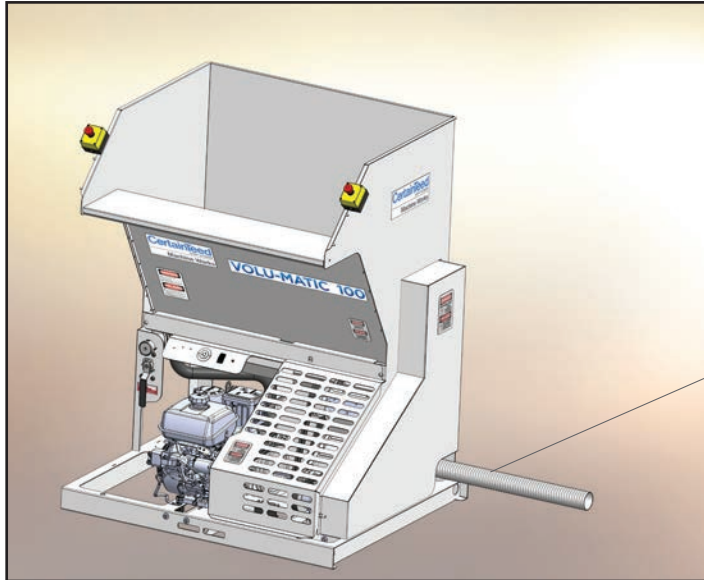
General Instructions:

1. Set the industrial engine speed for machine operation. Reduce machine speed approximately 20 percent for side wall operation
2. Vary the air bleed pressure first. If you cannot get the desired results by opening or closing the air control lever handle, then...
3. Vary the slide gate next. If you cannot get the desired results by closing or opening the slide gate, then...
4. Add or remove stator bar. If you cannot get the desired results by adding or removing the stator bar, then start with varying the air pressure again.

WARNING: always operate your machine with the truck or trailer sitting on a level surface. Operating the machine when it is not level will lead to failure of some machine components. The oil level in the engine, blower, and gearbox may not lubricate internal parts properly when the truck or trailer is sitting on an incline.

Getting Started

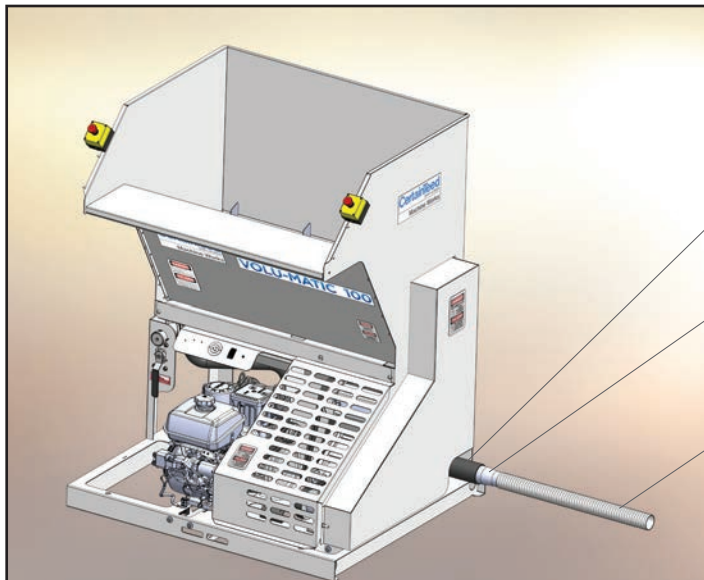
1. Connect hose as shown in the following drawing for a particular operation. Make sure hose connections at the airlock feeder outlet are connected firmly with band clamps and that the hose does not have a short radius bend.



For maximum open blow operation,
connect hose to airlock feeder

Note: hose connections are generally
made at the truck box or trailer through
wall connection established at installation.

3" blowing hose,
minimum 150'



For side wall operation, connect hose to
airlock feeder as shown in the drawing.

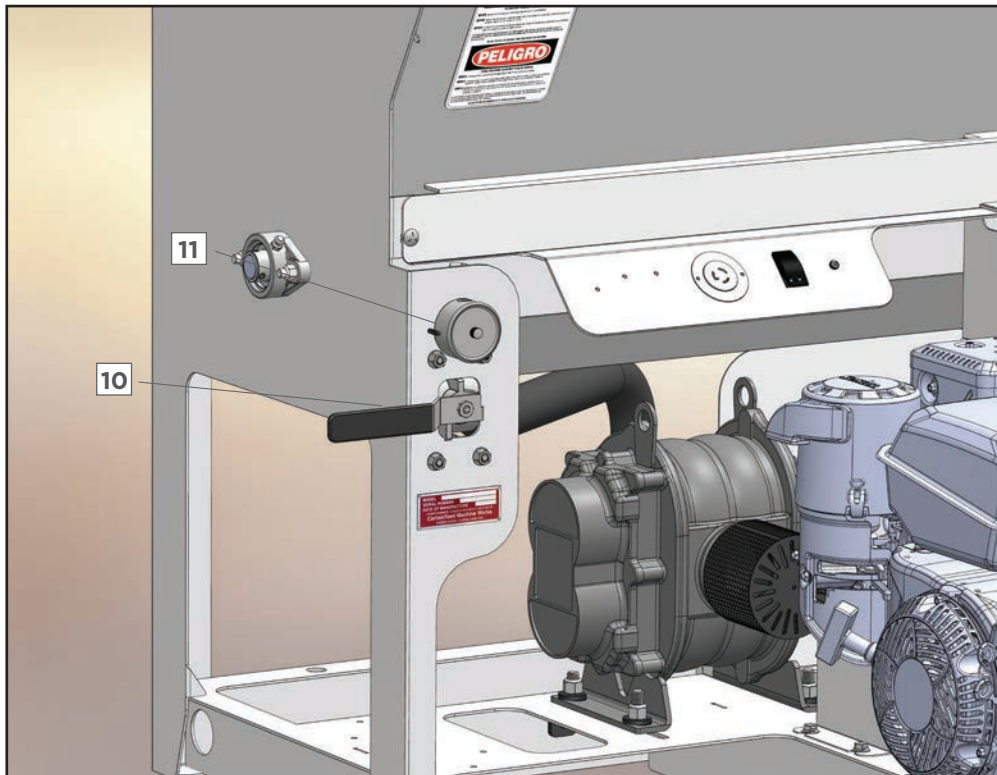
3" rubber
hose sleeve

3 - 2.5" reducer.

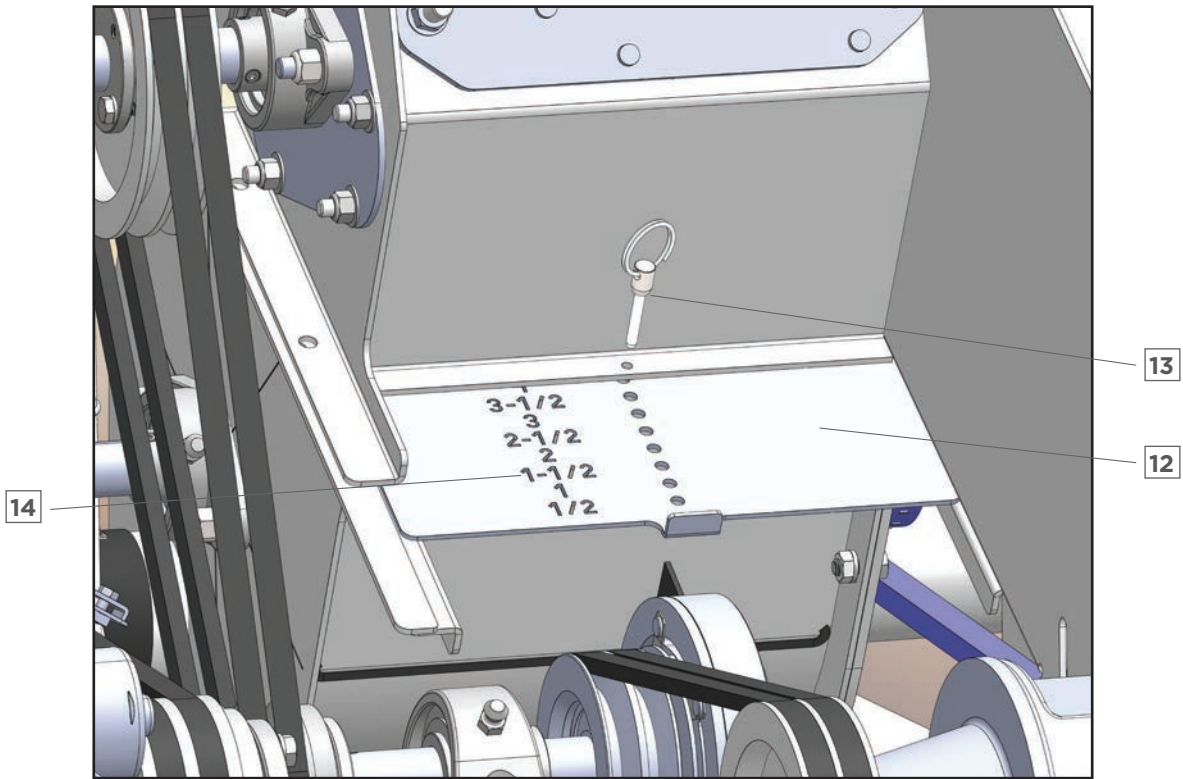
2.5" blowing hose,
minimum 150'

2. Make sure the emergency stop buttons are pushed in (off) and the remote cord toggle switch is in the center (off) position.
3. Use the recommended start settings chart to adjust machine for the type of insulation you are using and particular operation.
4. Air flow rate may be controlled with the air bleed control valve **10** while monitoring system pressure on the air gauge **11**. The system back pressure must be read while the **Volu-Matic® 100** machine is operating with full length and proper hose while material is being blown.

Always start the adjustment with the air bleed control valve in the fully closed position. If the air flow and pressure deliver the desired results with the valve closed, then do nothing to the valve. As you begin to open the valve, air is bled off from the exit of the blower preventing flow of all air to the airlock feeder. As you begin to open the valve, be careful to not open completely during open blow or the blowing hose could clog because of insufficient air volume.



CAUTION: as you open the valve, be careful not to open completely during open blow or the blowing hose could clog because of insufficient air volume.



5. To adjust the gate **12**, refer to the chart and select the proper setting for the material to be blown and particular operation. Pull the alignment pin **13** out in order to move the slide gate to the proper position. Insert alignment pin into the hole when the slide gate is moved to the desired number **14**. The scale is calibrated in half inch increments.

6. Load the machine from a standing position on the floor depositing bags of material on the shelf. Do not build scaffolding or use a foot stool to load material into the **Volu-Matic® 100** machine. This moves the operator closer to the rotating components in the hopper and provides a way to lose balance and fall.

Load one to two bags of material into the hopper being particularly careful not to leave pieces of bag in the hopper since this will clog and stall the machine. Make sure to keep the hopper full during operation without overloading and having the material overflowing onto the floor.

WARNING: Do not attempt to remove any foreign object from the machine until it is completely shut down; master switch turned off, emergency stop buttons pushed in, remote cord unplugged, and the engine shut down. Failure to do so will result in serious injuries by the rotating components in the hopper or on the machine.

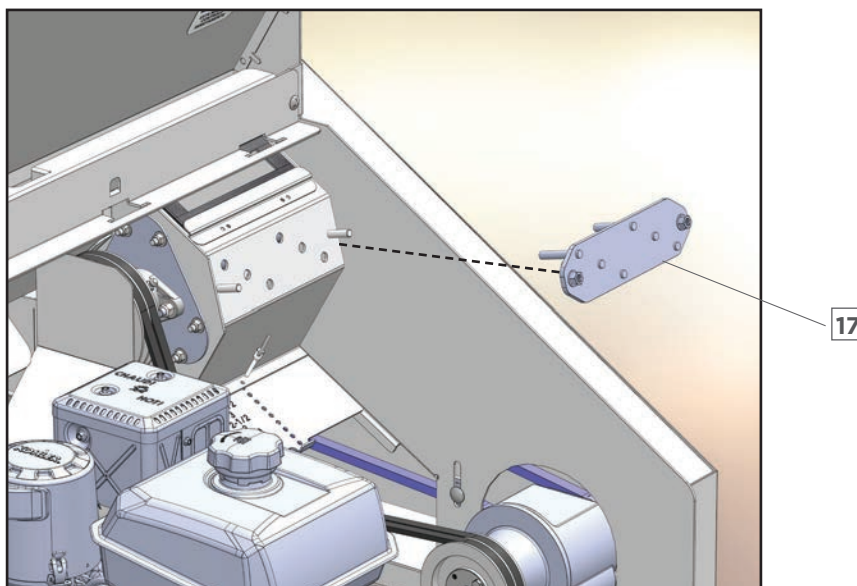
7. Twist emergency stop buttons out (on) for operation.
8. Start engine and increase speed with engine throttle.
9. Take the end of the blowing hose and remote cord to the job's starting point. Engage remote cord for air and material to begin the insulation blowing process.
10. Upon completion of the open blow operation, use air only function for the following;
 - clear all material out of hose.
 - level off insulation mounds.
 - blow off duct work and clear out air handler drip pan.
 - blow material from recessed lights.
 - blow material out of soffits.

Coverage

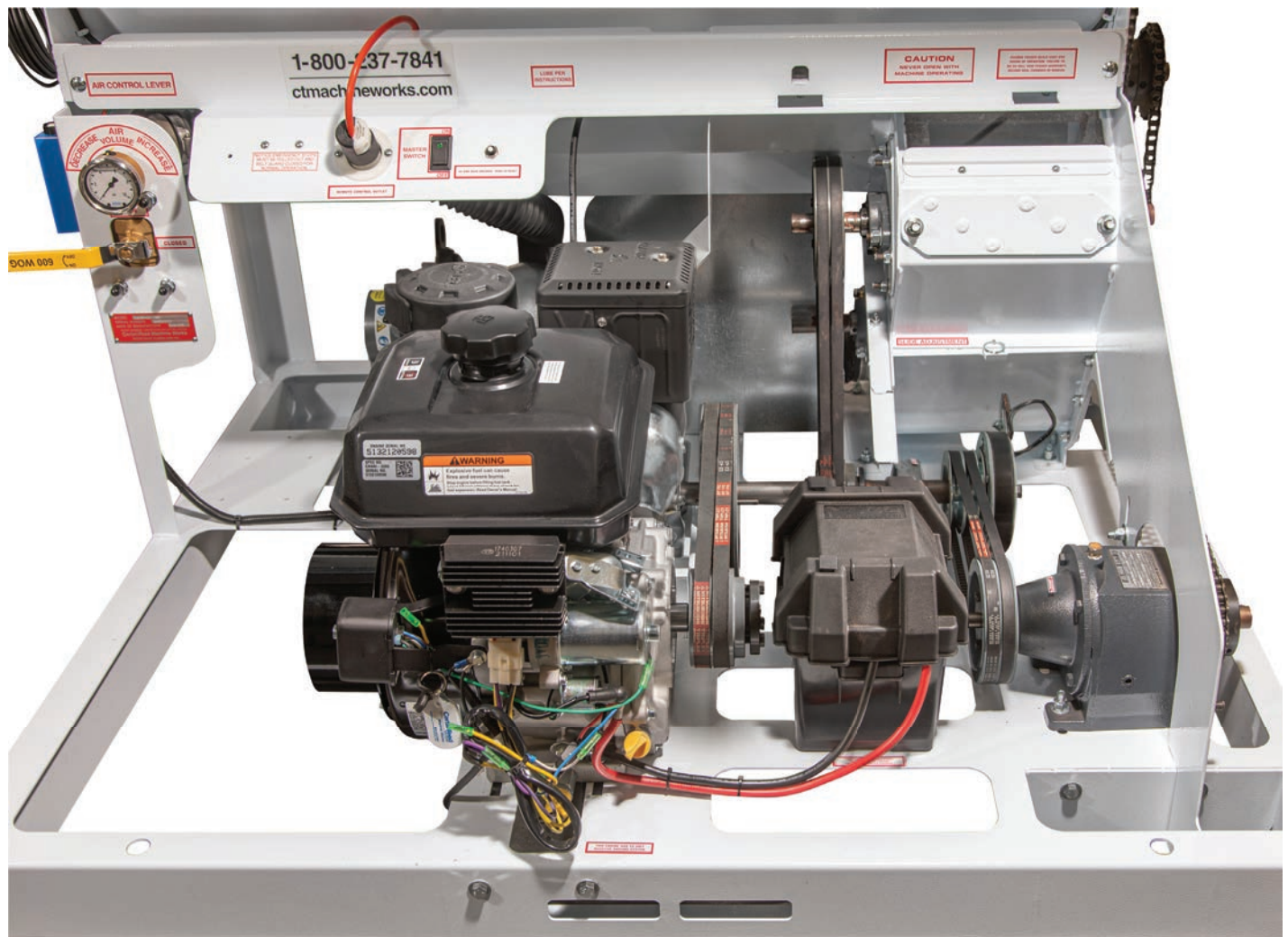
Coverage may be defined as the maximum allowable square feet covered per bag at a minimum specified depth and weight per square foot at a given "R" value. A manufacturer might recommend that the material be blown at a rate of 72.5 sq./ft. per bag at a depth of 11.5" and a weight 0.427 lbs per sq. ft. to achieve an insulation value of R-30. Fiber must be worked or conditioned by your **Volu-Matic® 100** machine to achieve coverage.

Coverage decreases when feed rates are too low and material is overworked by the machine mechanisms (or the wrong hose is used) rolling the fibers into tight little balls. Coverage will also decrease if feed rates are too high, allowing material to pass through the machine before it has been opened to the proper density.

A stator bar **17** is installed in the shredder housing of every new machine. The stator bar can help increase coverage, but it can also decrease coverage and slow the feed rate of the machine. Adjustments can be made by removing or adding the stator bar. If the stator bar is not used, the cover plate must be installed in its place. This adjustment should be done only after various settings of the air bleed control valve, slide gate, and transmission speed do not gain desired results.



Preventive Maintenance



General

Make sure the engine is off before attempting any maintenance procedures.

Daily

1. Check and clean the blower air inlet screen and industrial engine cooling air inlet screen as required during operation. Keep these screens clean.
2. Visually inspect and remove any foreign objects that may have entered the machine such as pieces of bag, rags, razor knife, etc.
3. Make sure emergency stop buttons are functional.
4. Check that the shredder area inspection window is not cracked.
5. Check oil level in the industrial engine.

Weekly

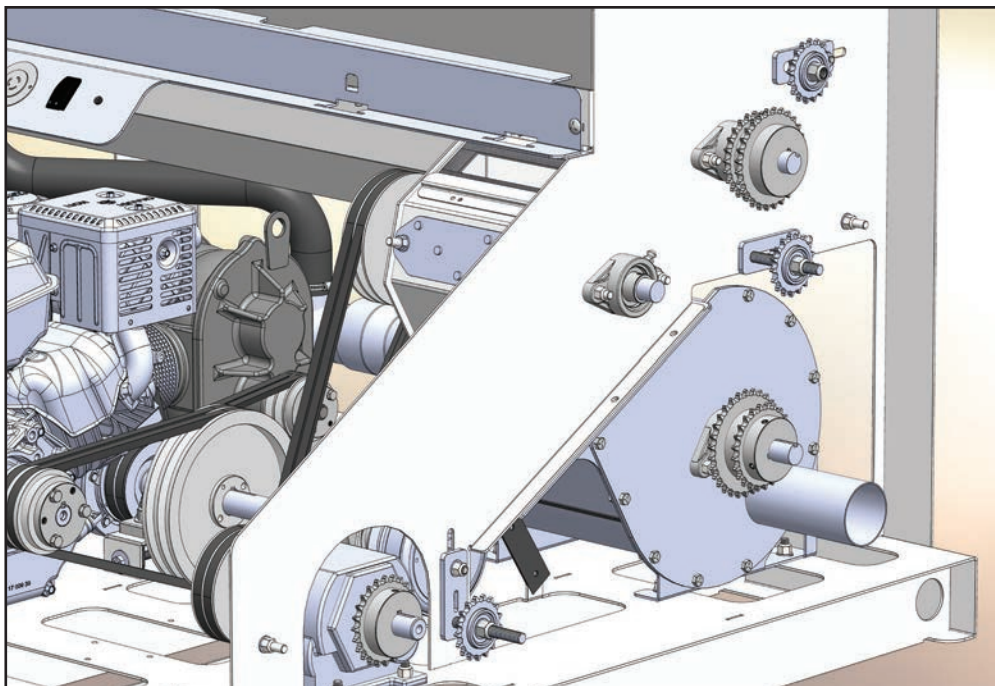
1. Check oil level in the blower.
2. Check oil level in gearbox.
3. Check chain and belt tension, adjust as required.

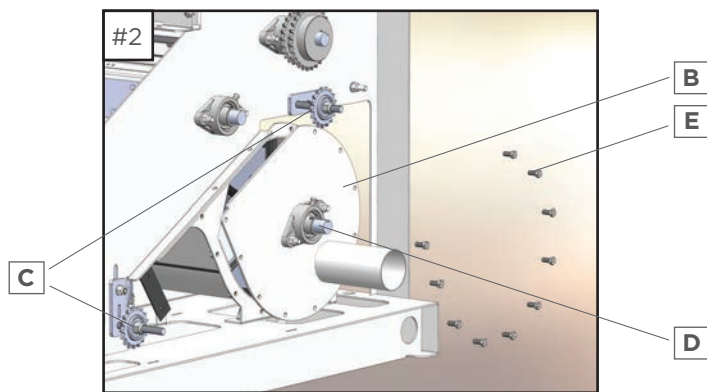
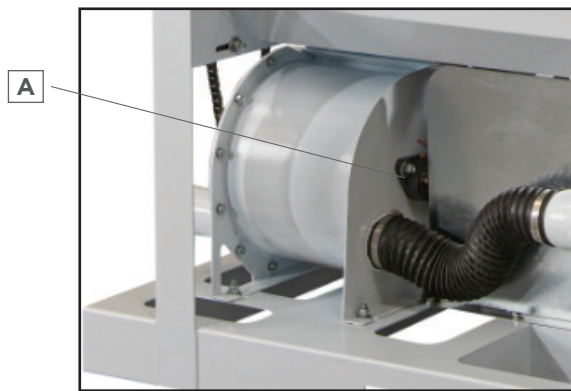
Airlock Feeder

The airlock feeder will require periodic maintenance to prolong the life of the assembly since steel will wear when abrasive type materials and air velocity are mixed. The rubber feeder seals must be changed every 250 hours of operation or approximately every 1 1/2 months if the machine is operated 8 hours a day 5 days a week. Additionally, the seals need to be replaced if problems are experienced with loss of air pressure and blow-by occurs during machine operation. Blow-by is a term used when material seems to blow back into the hopper area while the auger tries to meter the material into the shredder area. Failure to change seals on schedule will result in excessive wear and replacement of the feeder assembly.

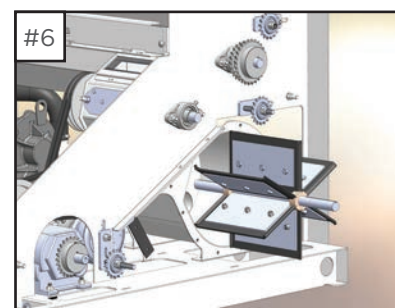
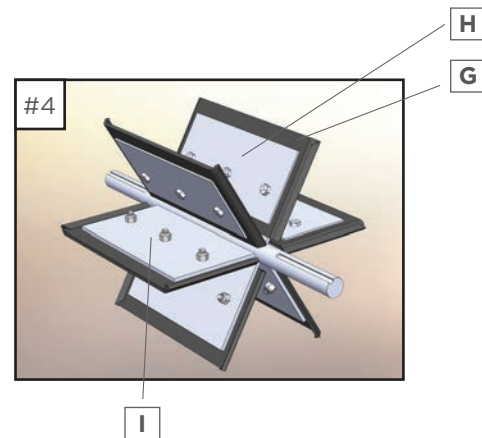
Change The Volu-Matic 100 Airlock Feeder Seals As Follows:

- Make sure you have a complete set of seals P/N 210358 before the job is started.
- Make sure all power is disconnected; distributor wire on engine, master switch off, remote cord unplugged, etc.
- Remove necessary guards to do the job after power is disconnected, make sure that all guards are installed and secure when job is complete.
- Once the outlet end plate is removed, check for excessive wear on the feeder barrel and end plate surfaces. New seals will not be effective in an excessively worn feeder. Inspect rotor for any wear and repair as required.
- Replace excessively worn or damaged feeder barrel, end plate and bearing seals for optimum performance from your **Volu-Matic® 100** machine. Excessively worn parts are considered to be when 25% of metal thickness has worn away.
- Supplies and tools for seal change:
 - Set of six seals (P/N 210358)
 - spare 5/16"-18 x 1" length grade 5 bolts and nylocks, spray silicon, never-seize shaft lube, penetrating oil, emery cloth, feeder crank hub and rod, dead blow hammer, pry bars, flat file, miscellaneous sockets, open end wrenches, and hex head Allen wrenches.





1. Loosen the set screws **A** in bearing collar on the inlet end plate only. Do not loosen the set screws in bearing collar on the outlet end plate **B**.
2. Loosen idler sprockets **C** to relieve chain tension. Remove both drive chains and sprockets **D** from the airlock shaft. Remove mounting bolts **E** from the outlet end plate.
3. Use pry bars between the end plate and feeder barrel to bring entire rotor assembly out. File and polish the rotor shaft. Loosen set screws in bearing collar and slide the end plate off the rotor shaft.
4. Remove the bolts that hold the backing plate **G** and rubber seal **H** to the rotor assembly. Clean rotor vane surface **I** (opposite side) before placing in a new seal. Bolt on backing plate making sure not to over tighten, distorting the seal.
5. Apply spray silicon lubricant to edges of new rubber seals and surface of feeder barrel. Apply never-seize lubricant on inlet bearing race.
6. Insert rotor assembly into airlock feeder barrel rotating counterclockwise while pushing with free hand. Make sure bearing seal at inlet end plate does not pinch between rotor shaft and bearing race.
7. Once rotor shaft enters the inlet end plate bearing, it might be necessary to use a dead blow soft hammer to fit rotor all the way into the airlock barrel while rotating it. Push rotor as far as possible with seals beginning to bend over on the side against the inlet end plate.
8. Install mounting bolts and tighten half way down rotate rotor
 - tighten bolts rotate rotor
 - tighten bolts completely
 - rotate rotor.



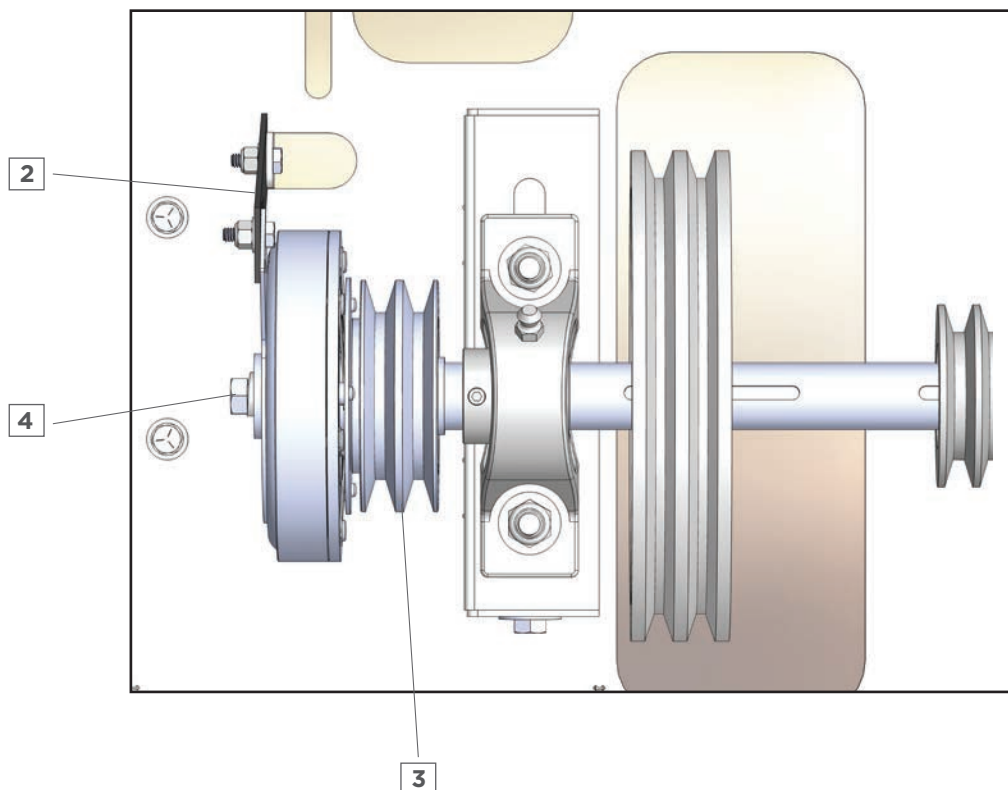
Peer through outlet end plate to see if rubber seals break over against the end plates evenly. Adjust as required by rotating rotor and tap with dead blow hammer. Tighten set screws in bearing collars when rotor is centered in the airlock barrel. Install drive components and any guards removed for service. Discard old seals.

Electro-Magnetic Clutch

The electro-magnetic clutch has no scheduled wear replacement parts and can only be replaced whenever field failures may occur. Refer to the following drawing and detailed instructions for removing the clutch from the shaft.

1. Disconnect wiring at clutch connector.
2. Remove torque arm attach bolt from clutch arm.
3. Remove drive belts from pulley. The pulley is part of the clutch assembly.
4. Remove the attach bolt, washer, & lock washer.
5. Slide clutch off clutch shaft. The use of a pry bar or similar device may be necessary to start clutch off shaft, wedge between bearing housing and clutch hub. Make sure that bearing shaft seal or clutch bearing seal does not get damaged.
6. Inspect clutch drive key, replace as required.

Note: Upon reassembly, make sure to add two drops of blue Loctite to threads of attach bolt. Be careful not to get Loctite on clutch shaft.



Industrial engine

Check the engine oil level daily before start up. Follow manufacturer's recommended maintenance schedule as specified in the engine manual included with the **Volu-Matic® 100** manual. Keep the engine clean, especially element type air filters and the air inlet cooling system.

Check that battery connections are tight and that cable leads are tight. If the battery is not maintenance free, check the water level weekly. Make sure you use distilled water when replenishing a non-maintenance free battery. Check that all exhaust connections are tight and that no leaks are present in the pipes or muffler, replace as required.

Blower

Check the oil level weekly in the blower by turning the brass valve 90 degrees to check. A small amount should appear indicating sufficient oil. C.M.W. fills Tuthill blowers with SAE30 and all other makes with 15W-40 motor oil. After 100 hours of operation, drain while warm and refill with fresh lubricant. Thereafter, change every six months or 1000 hours machine time. The bearings on the drive end of the blower should be grease lubricated once a month.

Gearbox

Check the oil level weekly in the gearbox. The proper oil level is at the bottom of the plug half way up the gearbox housing. After 200 hours of operation, drain while warm and refill with fresh lubricant. Thereafter, change every six months or 2500 hours machine time. Refer to the manufacturer's literature for the proper oil to use. The gearbox was initially filled with Mobil 630 gear lubricant.

Pillow Block Bearings — Machine Clutch Shafts

Machine main shaft bearings should be lubricated every month of operation. Do not over lubricate. One to two pumps from a hand operated gun is sufficient.

Flanged Bearings

Bearings should be lubricated every 6 months of operation if equipped with a grease fitting. Bearings without fittings are considered lubricated for life. Do not over lubricate. One to two pumps from a hand operated gun is sufficient.

Belts

Do not use belt dressing. Belt dressing will collect material and cause the belts to slip and/or wear faster. There is no substitute for keeping belts dry, free of oil and grease, and tight. Replace worn and deteriorated belts as required. All belt driven components are equipped with take up adjustment.

Roller Chain

If abrasive materials are conveyed through the machine, do not lubricate the chains. Material may collect and wear the chain and sprockets prematurely. Lubricate the chain if non-abrasive materials are conveyed through the machine.

Troubleshooting



1. Engine will not start.

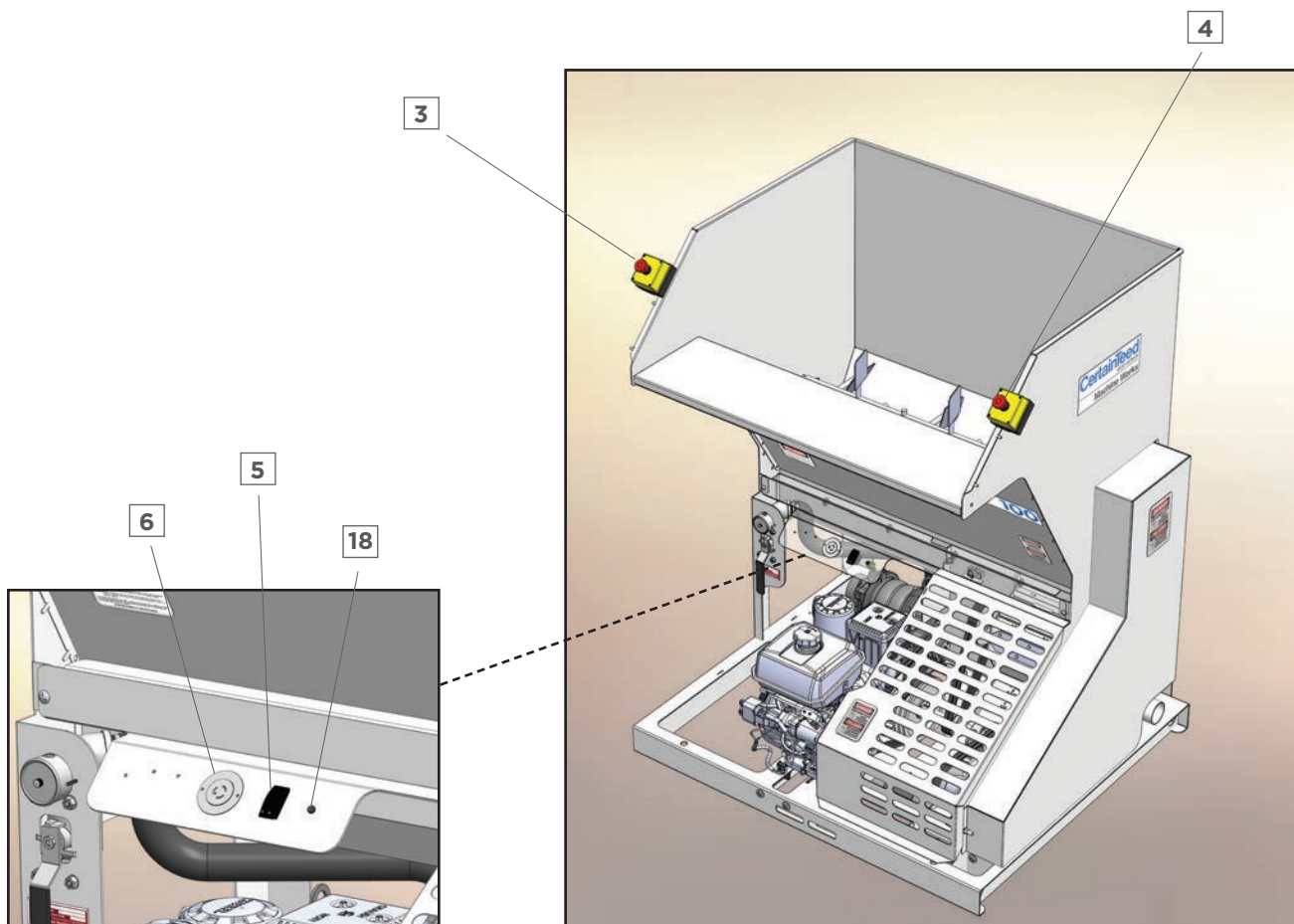
- Check that guard safety switch button is against the guard.
- Check if battery charge is low.
- See engine manufacturer's manual.

2. Engine starts but machine will not operate.

- Check for tripped circuit breaker **18** on machine front panel. A tripped circuit breaker will be indicated by the middle button protruding out. If the circuit breaker trips again - check for ground short.
- Make sure master switch **5** is on.
- Check that an emergency stop button **3** or **4** is not pushed in (off).
- Check remote cord connection **6**.
- Remote cord or connection defective.

3. Blower will not operate

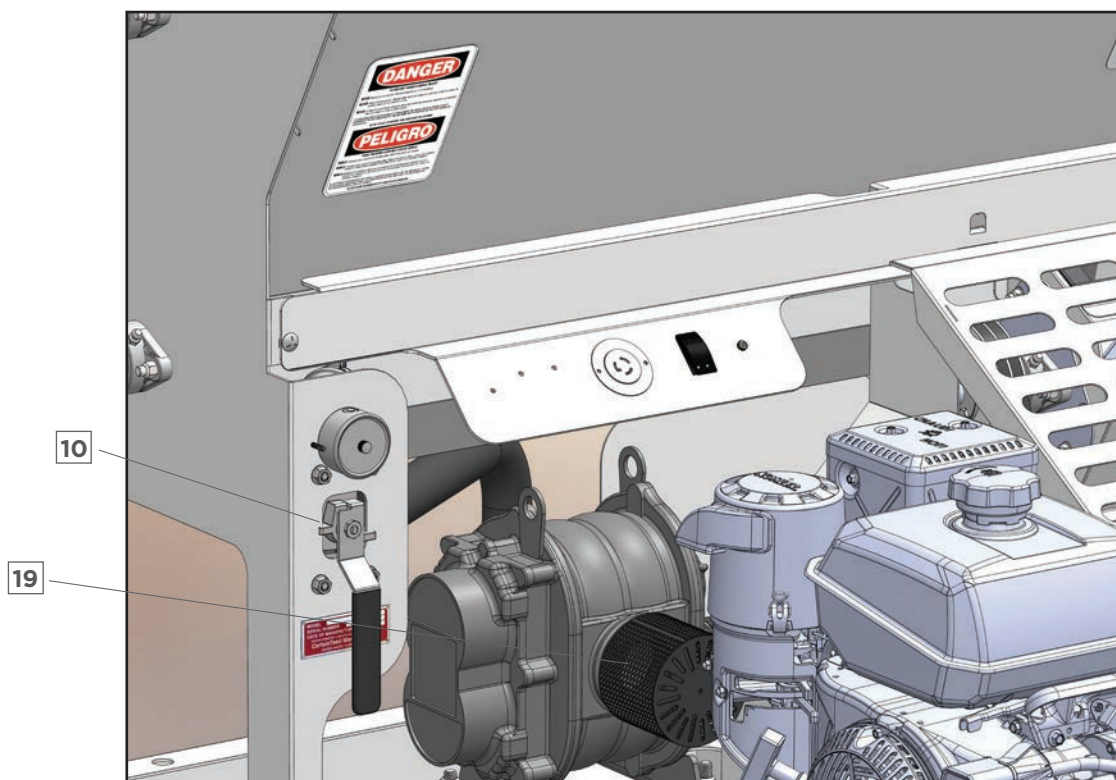
- Check clutch electrical connections.
- Check that blower can be turned by hand. If not - blower defective.



WARNING: make all checks with the industrial engine off. All machine electrical is powered by the engine battery. In order to check electrical functions the following has to happen; turn master switch on and twist emergency stop buttons out (on). Additionally, if the battery is weak (low voltage), the electrical may not work. This condition may also be caused by loose or corroded battery connections.

4. Insufficient Air.

- a. Check that air bleed control valve **10** is not fully open.
- b. Check if blower air intake flange **19** is clogged.
- c. Check air stream hose connections.
- d. Material hose plugged.
- e. Airlock feeder components (seals) worn out or damaged. F. Blower defective, worn, or damaged.



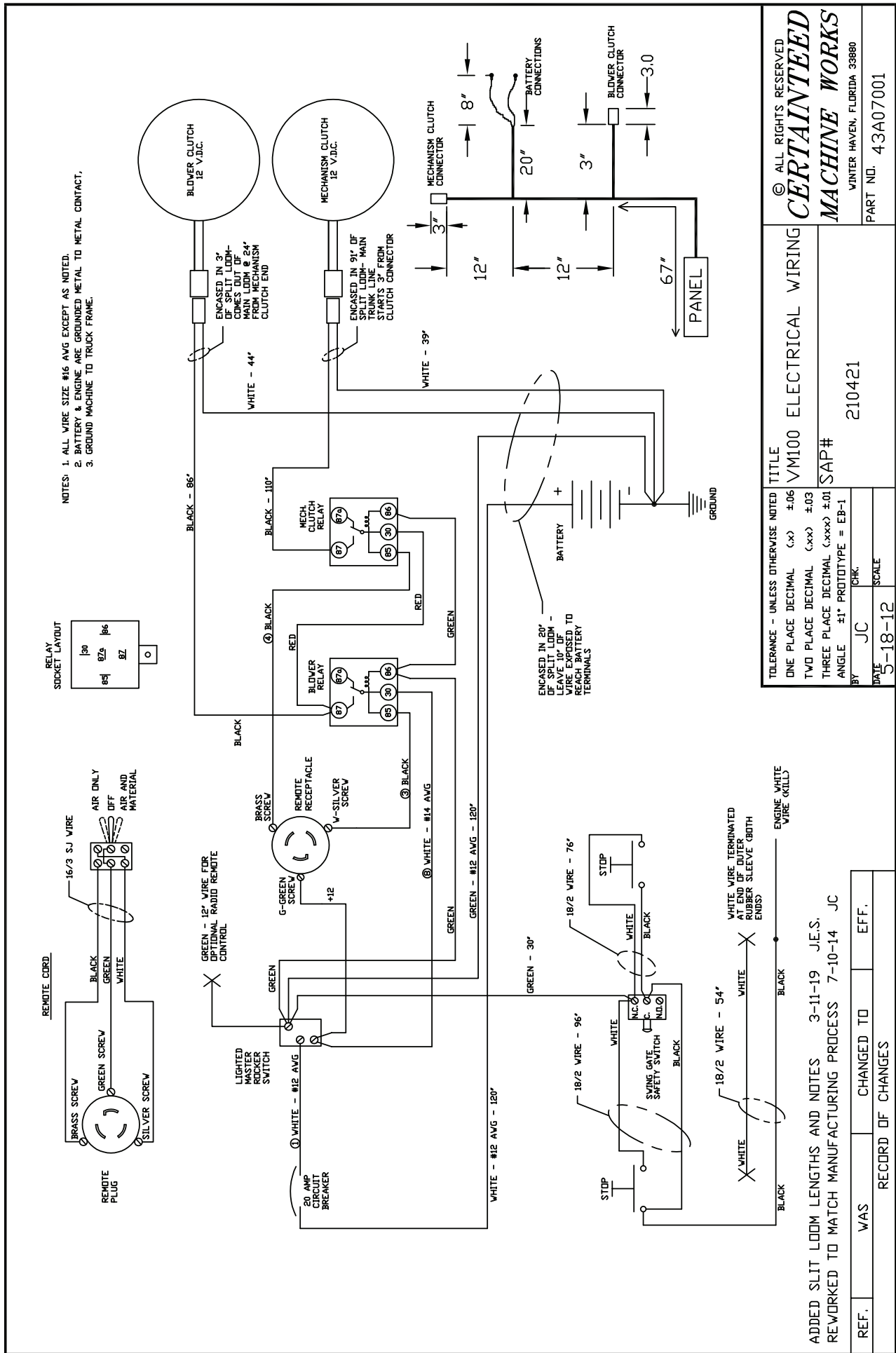
5. No Material Flow.

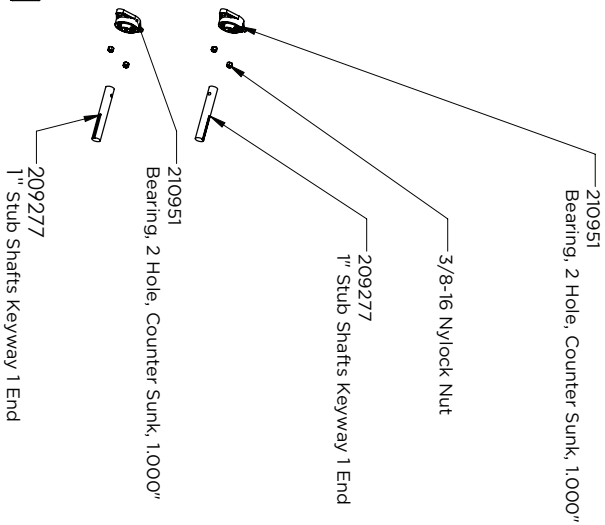
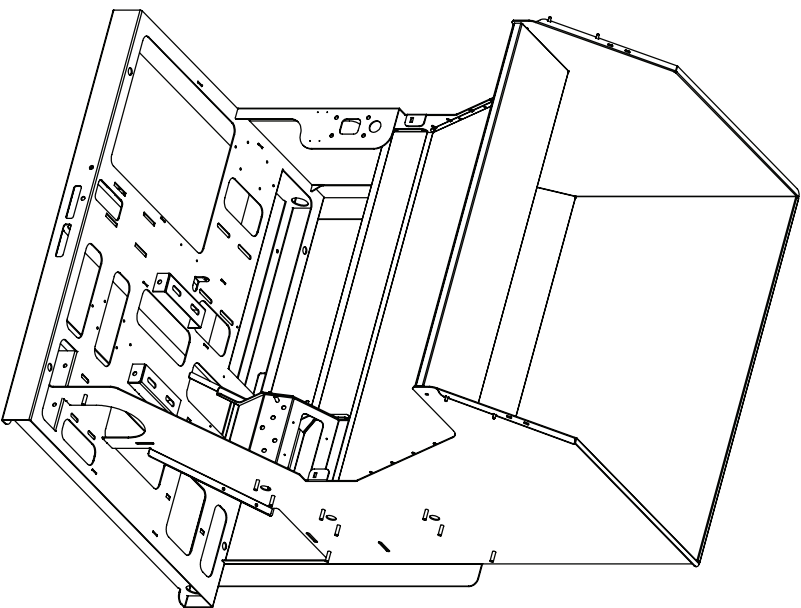
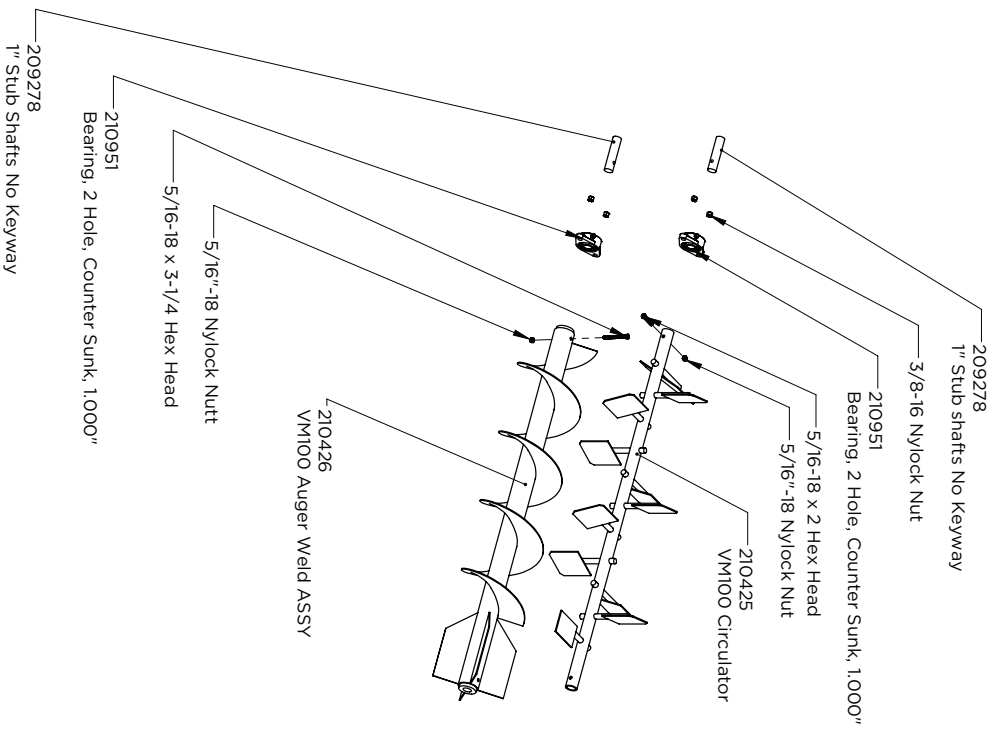
- a. No material in hopper.
- b. Check clutch electrical connections.
- c. Check if slide gate is closed or adjusted in too far for material feed rate.
- d. Object restricting flow in the machine.
- e. Material hose plugged.



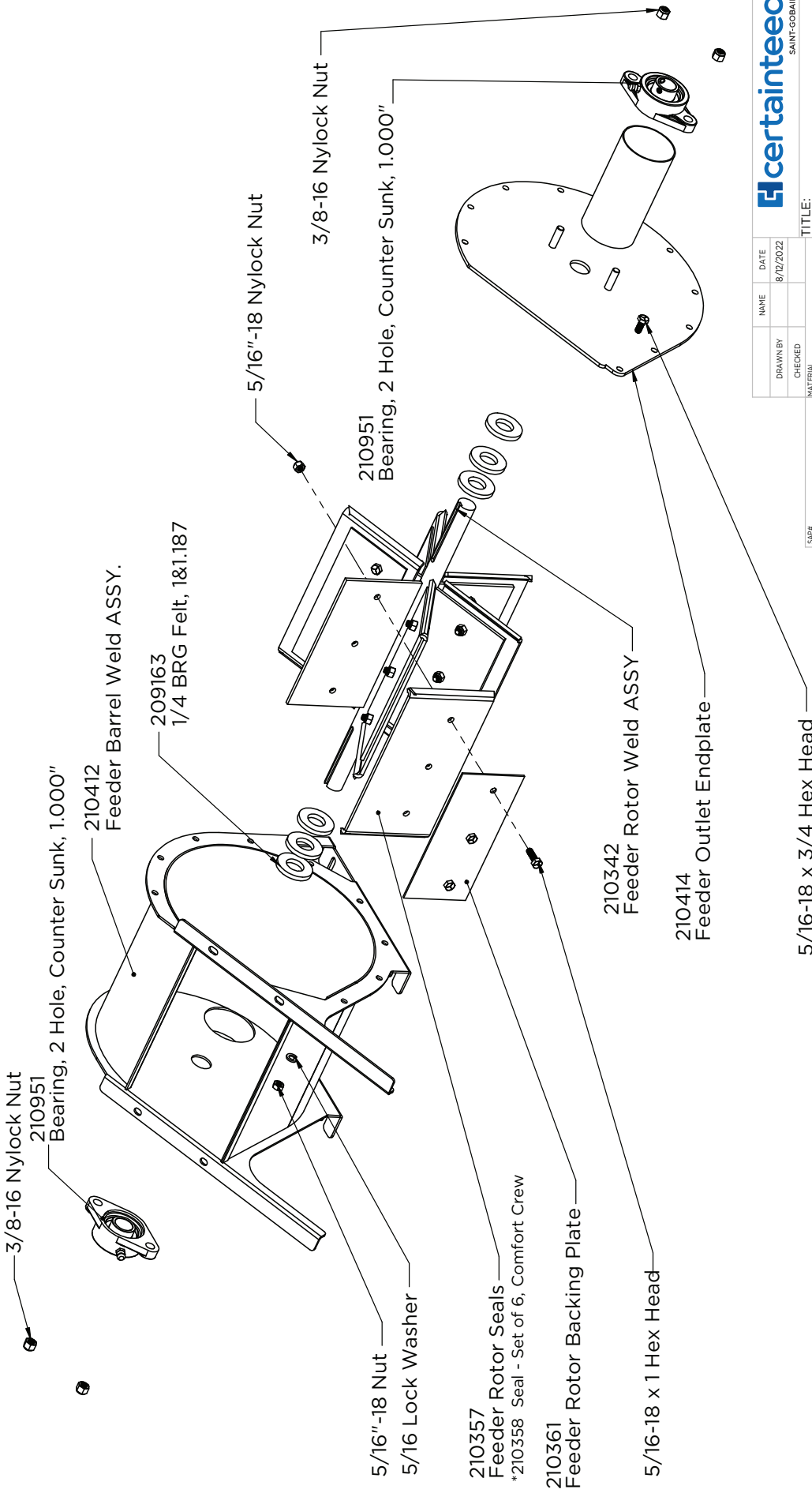
Parts Drawings



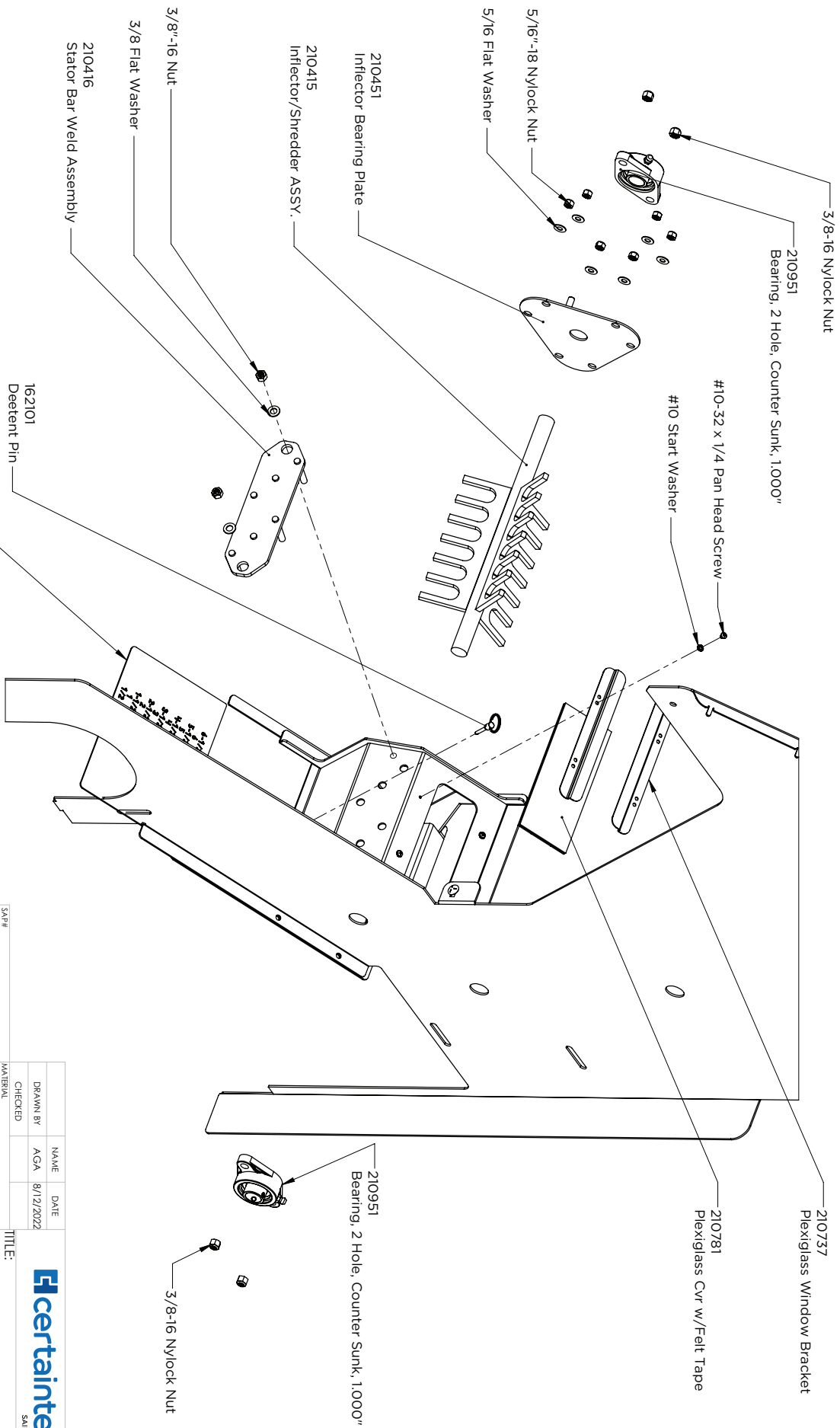




SAE#		NAME		DATE	TITLE: V100 HOPPER COMPONENTS SAINT-GOBAIN	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF CERTAINTEED. IT IS TO BE USED FOR THE MANUFACTURE OF CERTAINTEED MACHINE WORKS, ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CERTAINTEED MACHINE WORKS IS PROHIBITED. DO NOT SCALE DRAWING		DRAWN BY		AGA		8/12/2022
		CHECKED				
MATERIAL						
FINISH						
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: 1/32" ANGLE: ± 1° TWO PLACE DECIMAL: ± .03 THREE PLACE DECIMAL: ± .01						
SCALE: 1:15		SIZE	DWG. NO.	REV		
		B	VM100 HOPPER			
SHEET: 1 OF 1						

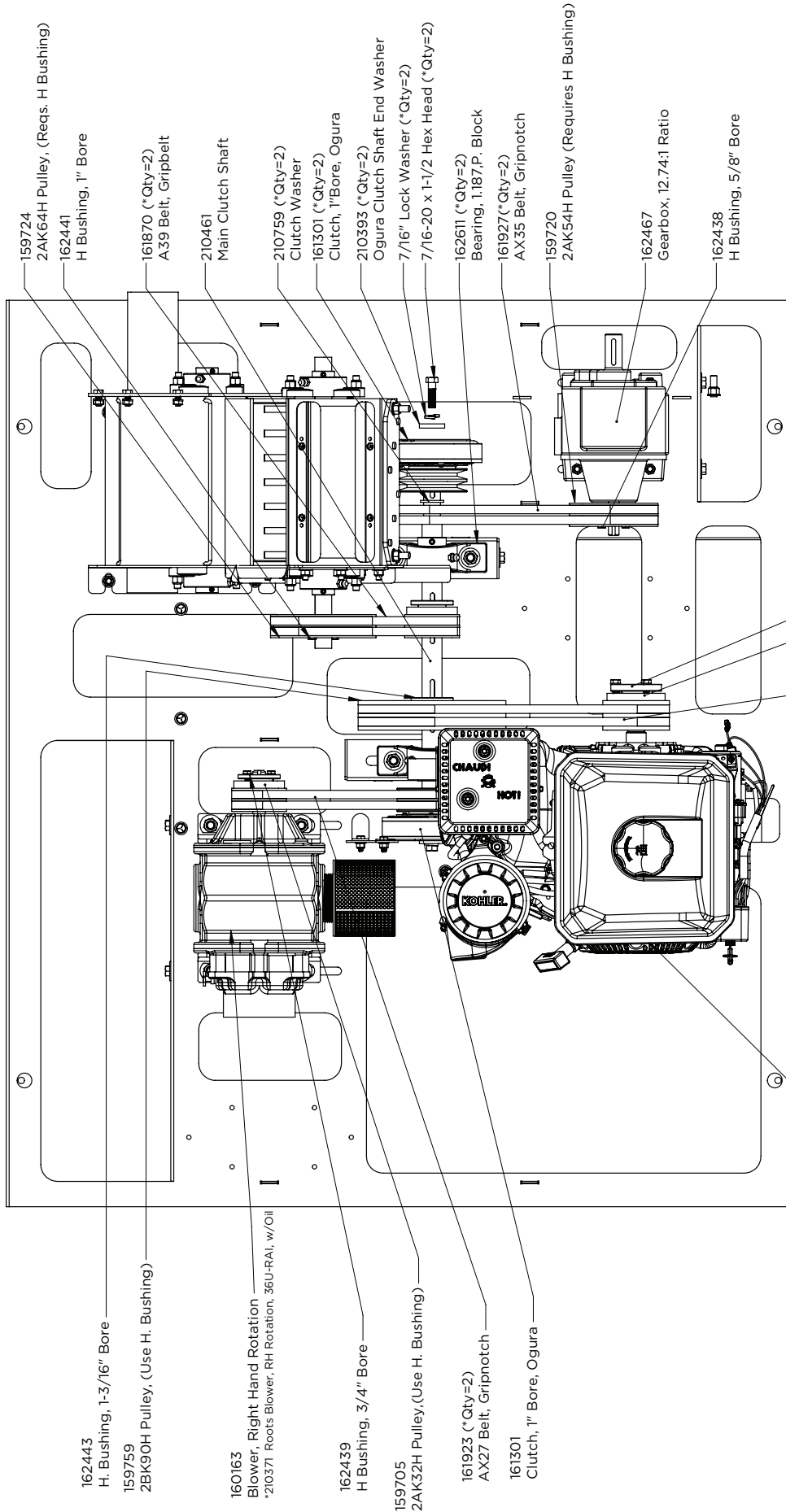


		NAME	DATE
SAINT-GOBAIN			8/12/2022
DRAWN BY	CHECKED		
MATERIAL			
FINISH			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES FRACTIONAL 1/32" ANGLE 1° TWO PLACE DECIMAL THREE PLACE DECIMAL .031			
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CERTAINTED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF CERTAINTED MACHINE WORKS IS PROHIBITED.		DO NOT SCALE DRAWING	
TITLE: COMPLETE FEEDER ASSY.		SCALE: 1:5	
SIZE DWG. NO. B 43A02000-C		REV	
SHEET: 15		SHEET: 1 OF 1	



SAF#		NAME	DATE
DRAWN BY		ACA	8/12/2022
CHECKED			
MATERIAL			
FINISH			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" DECIMAL ± .01 THREE PLACE DECIMAL ± .003			
DO NOT SCALE DRAWING			

PROPERTY AND CONFIDENTIAL		TITLE:	
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SIZE		DWG. NO.	REV
B		VM100 SHREDDER	
SCALE: 1:6		SHEET: 1 OF 1	



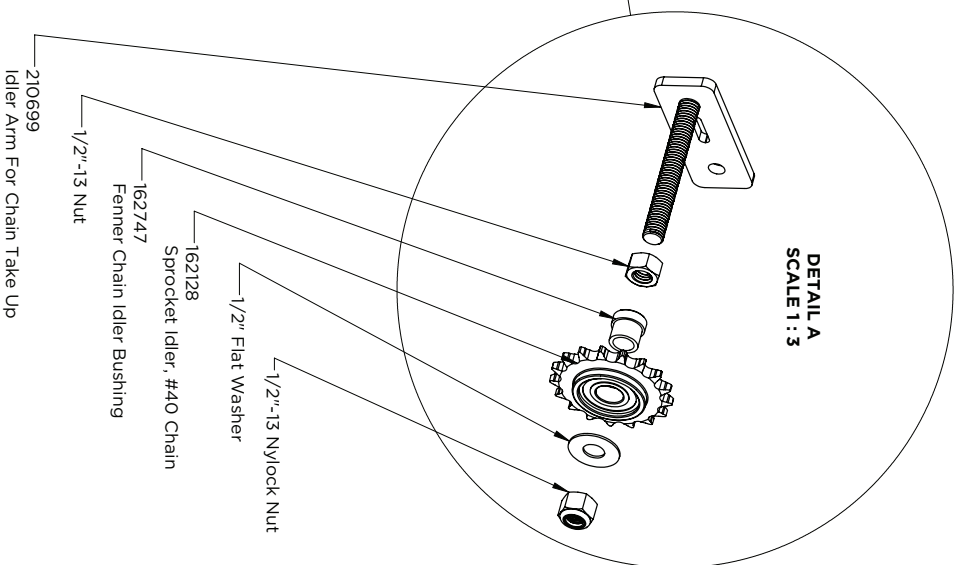
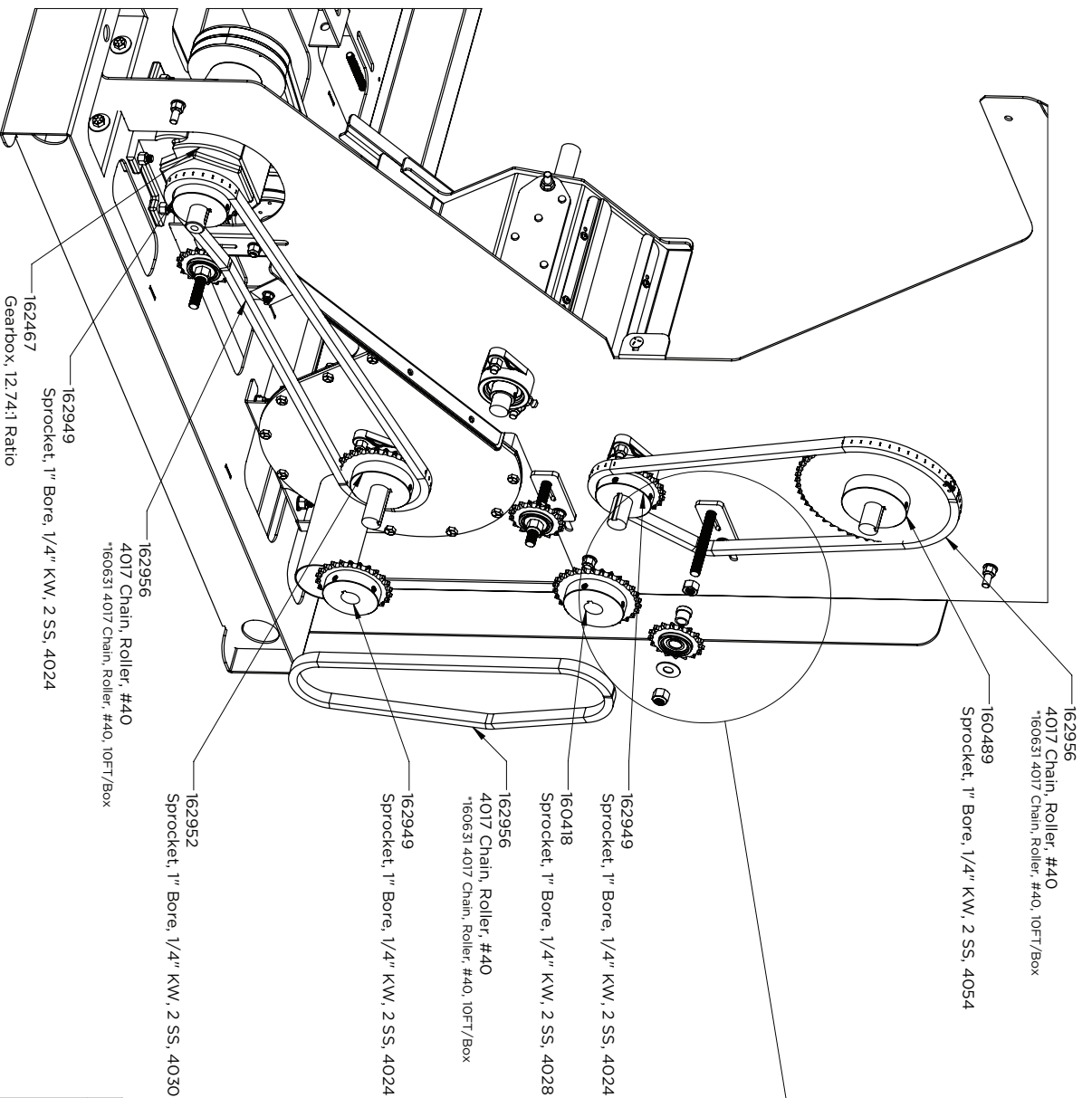
SAP#	MATERIAL	NAME	DATE	
		DRAWN BY	AGA 8/12/2022	
		CHECKED		
FINISH		TITLE: VOLU-MATIC 100 BELT DRIVE		
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CERTAINTIED MACHINE WORKS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CERTAINTIED MACHINE WORKS IS PROHIBITED.		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: $\pm 1/32"$ DECIMAL: $\pm .01$ THREE PLACE DECIMAL: $\pm .003$	SIZE DWG. NO. REV	
			B VM100 BELT DRIVE	
		DO NOT SCALE DRAWING		SCALE: 1:6 SHEET: 1 OF 1

162608
Kohler 14HP, Command Pro, 18 Amp

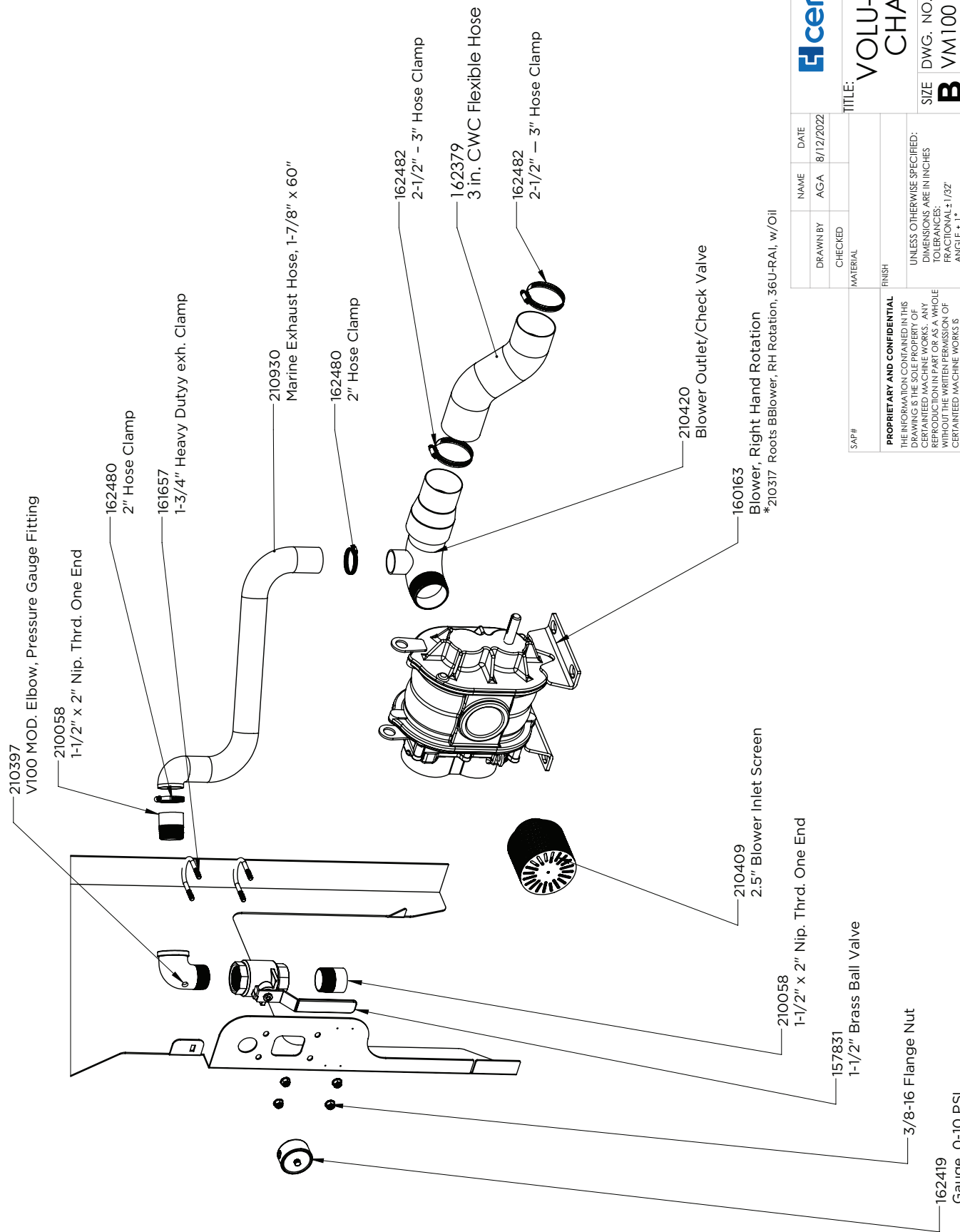
162019 (*Qty=2)
BX45 Belt, Gripnatch

159792
2TB36 Pulley

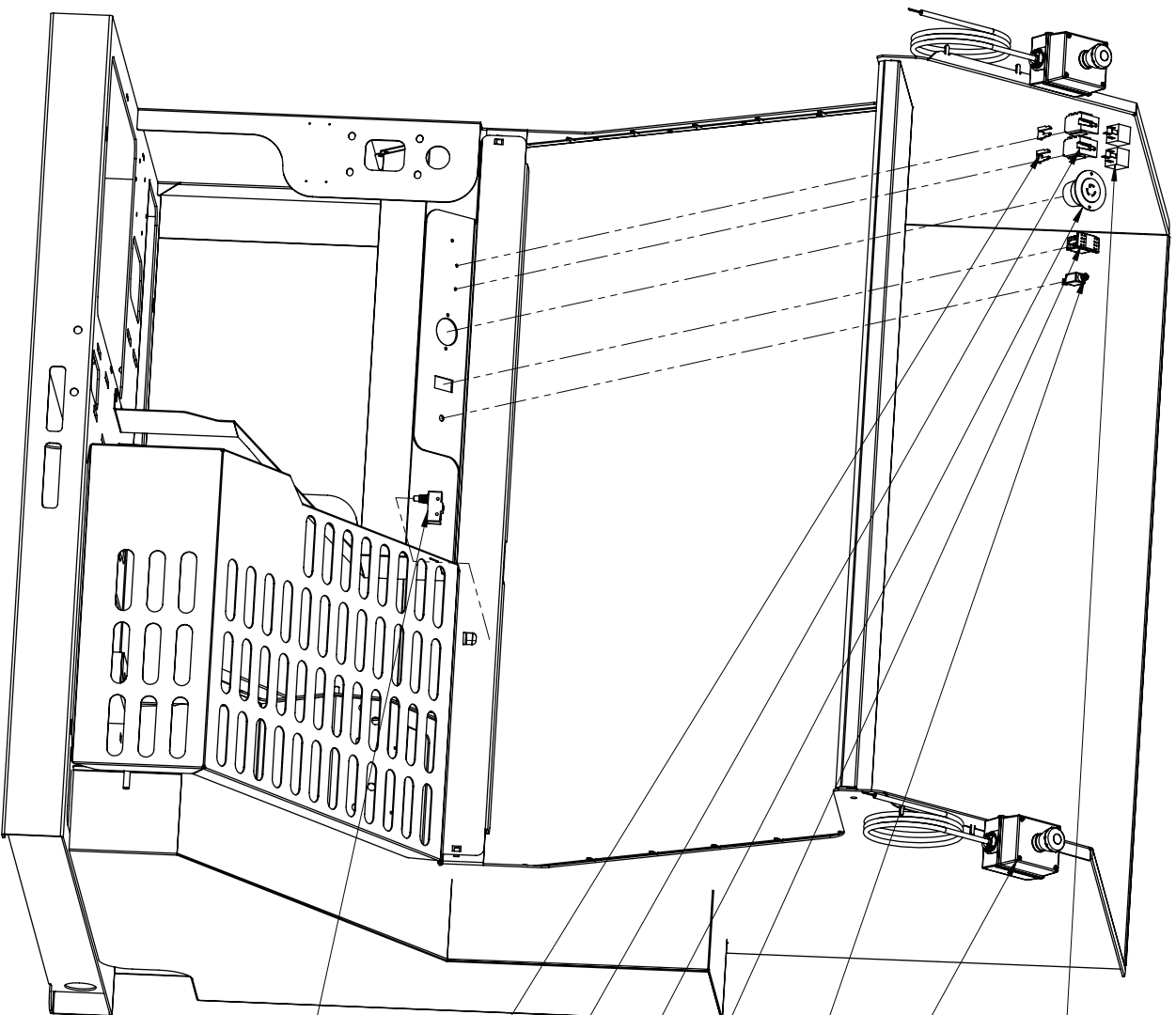
162592
PI Bushing, 1" Bore



<p>PROPRIETARY AND CONFIDENTIAL</p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CERTAINTED MACHINE WORKS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CERTAINTED MACHINE WORKS IS PROHIBITED.</p> <p>DO NOT SCALE DRAWING</p>	<p>S&P #</p> <p>FINISH</p> <p>MATERIAL</p>	<p>NAME</p> <p>DATE</p> <p>DRAWN BY</p> <p>CHECKED</p> <p>ACGA</p> <p>8/12/2022</p>	<p>certainteed</p> <p>SAINT-GOBAIN</p> <p>VOLU-MATIC 100</p> <p>CHAIN DRIVE</p> <p>SIZE DWG. NO. B</p> <p>VM100 CHAIN DRIVE</p> <p>SCALE: 1:3</p> <p>SHEET: 1 OF 1</p>
	<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES: FRACTIONAL $\pm 1/32$</p> <p>DECIMAL ± 0.03</p> <p>THREE PLACE DECIMAL ± 0.01</p>	<p>TITLE:</p> <p>REV</p>	

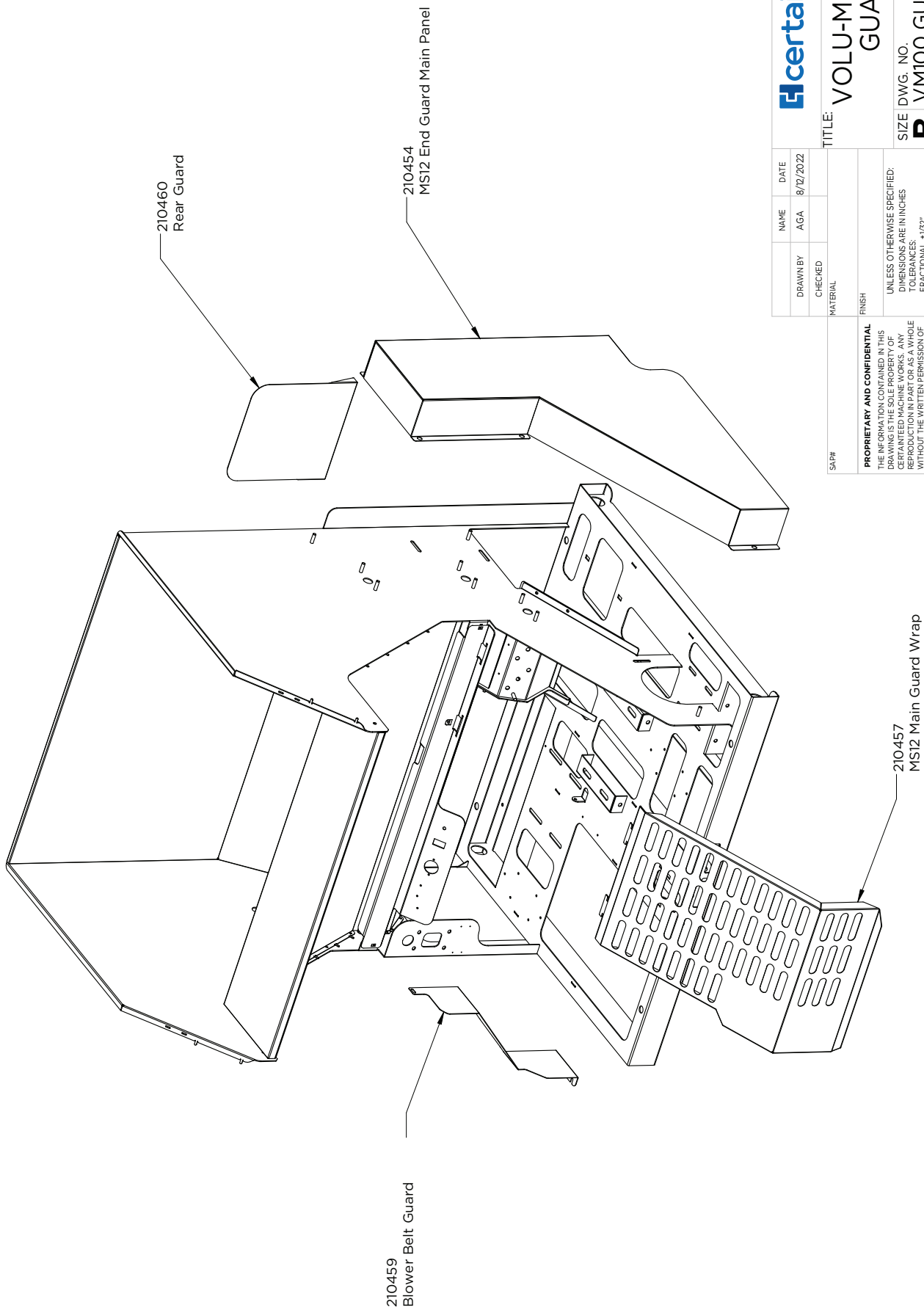


	NAME	DATE
	AG	8/12/2022
	DRAWN BY	CHECKED
	AG	AG
	MATERIAL	FINISH
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CERTAINTIED MACHINE WORKS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CERTAINTIED MACHINE WORKS IS PROHIBITED.		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/32$ ANGLE $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .03$ THREE PLACE DECIMAL $\pm .01$		
DO NOT SCALE DRAWING		
SAP#		
TITLE: VOLU-MATIC 100 CHAIN DRIVE		
SIZE	DWG. NO.	REV
B	VM100 AIR STREAM	
SCALE: 1:8	SHEET: 1 OF 1	



- 162893 (*Qty=2)
RELAY
- 162601(*Qty=2)
E-Stop
- 162068
Circuit Breaker, 20 AMP
- 160015
20A Green Master Rocker Switch
- 1 60724
Remote Receptable, 3 Wire
- 158183 (*Qty=2)
Relay Socket
- 158184 (*Qty=2)
Socket Locking Device
- 1 59772
Limit Switch, Guard Interlock

SAF#				TITLE:			
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				DRAWN BY		8/12/2022	
				CHECKED		AGA	
MATERIAL							
FINISH							
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: ±.1/32" ANGLE: ±.1° TWO PLACE DECIMAL: ±.03 THREE PLACE DECIMAL: ±.01				VOLU-MATIC 100 ELECTRICAL COMPONENTS			
SIZE		DWG. NO.		REV			
B		VM100 ELECTRICAL					
SCALE: 1:8				SHEET: 1 OF 1			



NAME

AGA

DATE

8/12/2022

DRAWN BY

CHECKED

MATERIAL

FINISH

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL $\pm 1/32"$

ANGLE $\pm 1^\circ$

TWO PLACE DECIMAL $\pm .03$

THREE PLACE DECIMAL $\pm .01$

DO NOT SCALE DRAWING

SAF#

PROPRIETARY AND CONFIDENTIAL

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TITLE:

VOLU-MATIC 100 GUARDS

SIZE

DWG. NO.

REV

B

VM100 GUARDS

SCALE: 1:12

SHEET: 1 OF 1

[illegible][illegible][illegible][illegible]

CertainTeed Machine Works Blowing Equipment

LIMITED TWO-YEAR WARRANTY

Terms and Conditions

CertainTeed Machine Works (the Company) warrants to each original purchaser (the Buyer) of its blowing equipment that such products will be free of manufacturing defects for a period of two years from the date of shipment to the Buyer, except that no warranty is made with respect to:

1. Components or accessories manufactured and warranted by others. Warranties for component parts such as gas engine, Electric blower motor, switches circuit boards, if furnished by the manufacturer of the component, are on file at the Company's main office and copies will be furnished with the equipment when sold. In no event shall the Company provide service on any such component.
2. Any defect caused by alteration performed without the express written authorization of the Company.
3. Repairs made or attempted or adjustments undertaken by unauthorized persons.
4. Any machine that has not been operated and/or maintained in accordance with normal industry practice and the written recommendations of the Company, such as a machine operated with an improperly sized, worn or damaged hose.
5. Damage or breakage due to carelessness, accidents, or improper use.
6. The effect of the application or use of the machine or any materials used in the machine, which are not recommended or specified in the operator's manual.
7. Any damage to the Machine not the result of a manufacturing defect.
8. Failure to follow the warranty procedures of CertainTeed and the manufacturers of other parts installed on the machine, as identified in operator's manual.

This limited warranty is not transferable.

The Company's obligation under this warranty is limited, at its sole option, to repairing or replacing any part that is determined by the Company to have a manufacturing defect. The Company or an authorized repair facility will provide any required parts and labor to the Buyer. If the Machine or any component part must be returned to the Company, all transportation costs shall be the Buyer's responsibility. The Buyer must obtain a Return Material Authorization (RMA) number from the Company before returning the Machine or component part for repair. The Company must receive notice of any claimed manufacturing defect within the two (2) year warranty period in order for coverage under this limited warranty to apply.

THIS DOCUMENT CONSTITUTES THE EXCLUSIVE WARRANTIES AND REMEDIES PROVIDED BY THE COMPANY. THE WARRANTIES AND REMEDIES CONTAINED IN THIS DOCUMENT ARE EXPRESSLY IN LIEU OF ANY AND ALL OTHER OBLIGATIONS, GUARANTEES, WARRANTIES AND REPRESENTATIONS, WHETHER WRITTEN, ORAL OR IMPLIED BY STATUTE, AT LAW OR IN EQUITY, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES MAY NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR MAY DETERMINE THE PERIOD OF TIME FOLLOWING THE SALE THAT A BUYER MAY SEEK A REMEDY UNDER IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THE COMPANY SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ECONOMIC LOSS, INCLUDING DAMAGES TO ANY BUILDING OR ITS CONTENTS, OR INJURY TO ANY PERSONS THEREIN, LOSS OF PROFITS, REVENUE, OR LOSS OF EQUIPMENT USE, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS, OR FOR ANY CLAIM AGAINST THE BUYER BY ANY OTHER PARTY. IN NO EVENT SHALL THE COMPANY'S TOTAL LIABILITY ARISING OUT OF OR RELATED TO THE MACHINE COVERED UNDER THIS WARRANTY EXCEED THE ORIGINAL PURCHASE PRICE OF THE MACHINE.

This limited warranty does not extend to component parts that need to be replaced on a regular basis due to normal wear and usage, including but not limited to seals, feeder, shredder, auger, fuses, switches, clutches, hoses, shaft seals, chains, belts, sprockets, pulleys, bearings, cables, and batteries.

Any claimed defect for which the Company does not receive notice within the two-year warranty period is not covered by this warranty.

101 Hatfield Road Winter Haven, FL 33880-1325

Phone: 863-294-3206

Fax: 863-294-6771

Sales: 800-237-7841

Website: www.certainteed.com

