



Accu1 9118 OPERATIONS MANUAL



Accu1Direct, Inc

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115/230

Forward

Congratulations on your purchase of and Accu1 blowing machine from Accu1Direct, manufacturers of the finest blowing and spray machines made.

Accu1 machines represent the highest value, most reliable and most productive equipment in which a contractor can invest. The machine you have selected shares the same top quality engineering and manufacturing with the rest of the Accu1 line.

Because all material manufacturers continue to introduce new material for blowing and spraying applications, Accu1-designed machines, with their constantly updated technology, increase contractor profitability.

It helps to become familiar with all of the major components of the Accu1 machine and to know how to adjust each of the different materials that are available. Please take a few moments to review this booklet – to learn the capabilities of your new machine.

WARNING – SAFETY ALWAYS COMES FIRST!

Avoid work stoppages caused by accidents – unsafe operation of this equipment can cause severe bodily injury.

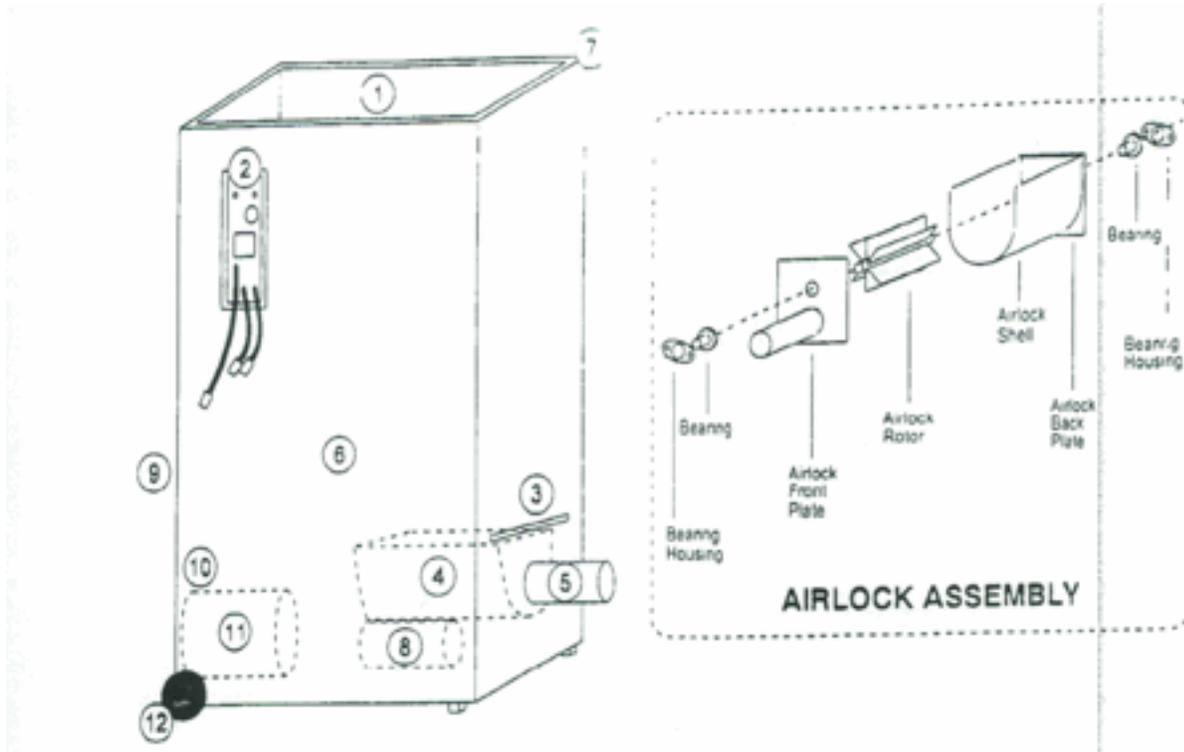
- * Have a licensed electrician make all electrical connections, including a proper ground.
- * Leave drive-covers in place at all times.
- * Don't operate equipment when minors are present.
- * Keep ALL BODY PARTS away from rotating elements.
- * Disconnect power cords before working on machine.
- * NEVER RELY ON THE SWITCHES TO TURN THE MACHINE OFF, DISCONNECT AND REMOVE ALL POWER CORDS TO BE SAFE.

HOW TO GET STARTED

- 1) After taking the machine out of the shipping container, remove packing material, wheels and remote cord from inside material hopper.
- 2) Lay machine on side, and install wheels .
- 3) Open material control meter to desired material flow opening.
- 4) To provide adequate power to the machine, use only 10/3 cord. Distance from the power source to the machine must not exceed 100 feet.

BEFORE BEGINNING, PLEASE READ THE OTHER PAGES IN THIS BOOKLET. THE INFORMATION THEY CONTAIN WILL BE A GREAT HELP IN PROVIDING THE RESULTS YOU WANT TO SEE.

Accu1 9118



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| <p>1) HOPPER
Bin into which material is placed</p> <p>2) ELECTRICAL CONTROL PANEL
Allows the operator to activate and control the insulation blower.</p> <p>3) OPENING FOR SLIDE GATE
CONDITIONING CARD
Location for insertion of secondary material conditioning devices.</p> <p>4) AIRLOCK CHAMBER
All-steel chamber with pressure sealed rotors which control amount of material exiting into hose.</p> <p>5) AIRLOCK OUTLET
Connection point for blowing hose.</p> <p>6) AGITATOR PADDLES AND VANES
Primary material conditioning devices.</p> | <p>7) CABINET
All-steel shell</p> <p>8) BLOWER UNIT
Blows material through hose.</p> <p>9) SLIDING ACCESS PANEL
Removable side panel for easy access to interior.</p> <p>10) SERIAL NUMBER
Plate on which serial number is engraved.</p> <p>11) ELECTRIC MOTOR
Power source to rotate agitator paddles and vanes.</p> <p>12) WHEELS
Designed for machine portability.</p> |
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Accu1 9118

Size: 20" x 24" x 36"(91.44cm x 50.8cm x 91.44cm)

Power requirement: (1) 110 volt – 15 amp circuit /(1) 220 volt - 10 amp circuit

Blowing Capabilities:

For use with Cellulose, Fiberglass, Rockwool or Fireproofing material. Results vary with material manufacturer. Results vary with size, type and length of hose being used.

Machine Settings:

All settings are starting points only – machines should be set to job and weather conditions.

Open Blow: (Attic) with 100ft (30.48m) of 2 ½" (6.35 cm) blowing hose

Product gate: Remove completely

Sidewalls: With 50ft (15.24m) of 2 ½" (6.35 cm) blowing hose and 50' (6.35 cm) of 2" (5.08cm) hose:

Using 1" (2.54cm) reducing nozzle: Product gate open to 3rd hole

Using 2" (5.08cm) reducing nozzle: Product gate open to 7th hole

Finish Spray: Product gate: Open to 3rd hole.

Pump pressure: minimum of 200psi with nozzle shut off.

Wall Spray: Product gate: Open to 7th hole.

Pump pressure: minimum of 200psi with nozzle shut off.

Fireproofing patch: Product gate: Open to 4th hole.

Pump pressure: minimum of 150 psi with nozzle shut off.

Machine Operation

POWER

Your Accu1 machine is electrically powered by either 110 volt or 220 volt (international) single phase power depending on the model. Job sites are notorious for overloaded power conditions that result in low voltage. To lengthen the life of your insulation machine's motors, connect the machine to its own circuit of the proper voltage and be sure the power cord is 10/3 or heavier, and that the power cord between the plug and the machine is no longer than 100 feet (30.48m). An overloaded circuit will reduce the 100 feet (30.48m) maximum working distance of the power cord.

Where the proper power is not available, generators may be used as follows:

New Generators with Motor Start Windings – each horsepower of electric motor requires 2000 watts of generator power.

Old Generators – each horsepower of electric motor requires 3000 watts of generator power.

Since the greatest power consumption is caused by motor start-up, the job site circuit breakers may be kept from overloading by reducing the number of times the machine is stopped and started, or by leaving the blowers on.

Accu1 machines equipped with a centralized electrical control panel containing a remote control operate with a 24-volt circuit for controlling the motors. Although control panel features may vary from model to model, each has a main power inlet receptacle(s), and a cord connection for a remote control switch.

Switches

All switches are connected to 24-volt power as a safety measure. The switches actuate contactors, which turn the motors on and off.

Contactors

Contactors are powerful relays used to switch the enormous power loads created by turning the motors on. Because of the dirty conditions on many job sites, the points inside a contactor may foul. The points may require cleaning, replacement, or, on some models, reattachment of the wires to the auxiliary set of points.

Transformers

The low voltage to operate the switches and contactors comes from a transformer. Transformers rarely malfunction, but they will burn out immediately if they are connected to the wrong power. They serve as an additional safety device to prevent damage to Accu1 machine motors.

CONDITIONING

An Accu1 insulation blowing machine is designed to properly condition insulation material and transport it to the area to be insulated. The conditioning takes place in two stages: initially, in the machine, and finally, in the blowing hose.

Insulation material passes through the AccuOne machine in the following sequence:

- 1) Material is placed in the hopper bin on top of the machine.
- 2) Material in the hopper is broken up and expanded by the material conditioning system.
- 3) Material is forced into the airlock chamber below.
- 4) Material is then forced into the air stream by rotating, pressure-sealed vanes in the airlock chamber.
- 5) Material is pushed by the blower motor through the hose, with the proper air volume to finish the conditioning process.

Machine Operation

INSULATION

In every insulation job insulation must be kept the proper distance from the sources of heat and the correct number of bags must be installed to achieve a given R-value. The installer must adjust his machine appropriately before installing the minimum number of bags stated on the manufacturers bag label. "Inches of Insulation" do not ensure the correct R-value – bags do. Each type of insulation has its own installation techniques in which the insulation depth and rate of coverage will vary with the type of insulation used and the adjustment the installer makes on his/her machine.

MATERIAL CONTROL METER(GATE)

The meter controls the amount of conditioning the material that is fed into the airlock, and the amount of conditioning the material receives in the hopper.

This may be adjusted to:

1. Provide smooth spray application by reducing the flow of material.
2. Enhance material conditioning by reducing the flow (increases the time that the material spends in the hopper).
3. Optimize production when using long stretches of hose, or when insulating in tight space, by increasing the flow.

ISSUES AFFECTING PRODUCTION

Optimal blowing production in your Accu1 machine may be achieved by making the following adjustments:

1) The material control meter may be set in the higher range so that more material is fed into the airlock each moment.

2) Hose diameter may be increased.

Material output is directly related to the type and quality of hose being uses. The larger the hose, the greater the output. Hose connectors, coiled hoses and hoses of different sizes connected together will restrict the flow of material.

3) Airlock rotor seals may need to be replaced.

The airlock rotor and chamber in your machine are made of precision-machined steel. To ensure maximum pressure and production, the rotor has heavy-duty airlock seals clamped between all-steel plates. After extended use with mineral materials, or abuse from extraneous materials that have been allowed to enter the chamber, these seals will slowly show signs of wear. This wear will become apparent through a decrease in production caused by diminished pressure. With extended wear of the seals, blow back of the material in the hopper will be noticed. This may be remedied by replacing the seals, which is easily done.

Blowing production may be limited by the necessity for achieving proper coverage. The limiting factors may be imposed by the ceiling or cavity conditions, the installer, the blowing hose, the desired R-value or the insulation itself.

The most common cause of lost production time however, is worker carelessness. When a knife is dropped into the hopper, it must be removed at one to prevent jamming or damaging the machine.

REMEMBER! – ALWAYS TURN THE MACHINE OFF, AND UNPLUG AND REMOVE THE CORDS BEFORE ATTEMPTING TO EXTRACT OBJECTS!

THE INSTALLER

A well-trained installer with a positive mental attitude can use the Accu1 machine to maximize production. This type of work is dirty by necessity, but it does not have to be dangerous also, or frequently stopped by operator inattention. Accu1 high technology machinery is reliable and virtually trouble free when used properly. It pays for itself quickly by blowing the most material in its class. Simple, easy adjustment can be made by the installer to speedily prepare their machine for all types of applications.

Time and motion studies have shown that the installer familiarizing their self with the job, and rolling out their hose occupies a major portion of their job time. High production Accu1 machines provide the competitive edge to shorten the time an installer spends on the job. The less time they spend, the more efficient they are.

HOSE

Improper use of the hose can adversely affect production:

- 1) Never allow the hose to remain coiled while in operation. Be sure the hose has been straightened to avoid clogging and backpressure.
- 2) Always use the shortest workable hose length for a job. Excessive hose lengths lead to coiled and twisted hoses, as well as additional backpressure and extra material conditioning.
- 3) Because long runs of hose create friction and slow material flow, it is best to run the largest diameter of hose for as long as possible and then reduce the size at the point if job site to the size of the nozzle

Machine Operation

All Accu1 equipment is designed to give maximum service with minimum maintenance. The following table is a suggested guide to help you maintain your machine properly. Correct equipment care, i.e., KEEPING THE MACHINE OUT OF THE WEATHER, AND KEEPING FOREIGN OBJECTS OUT OF THE HOPPER, will be rewarded with many years of top performance.

IN SHOP PART CHECK SCHEDULE

<i>PART</i>	<i>CHECK PART FOR</i>	<i>DAY</i>	<i>WEEK</i>	<i>MONTH</i>
Air Intake Filter(s)	Clogged pores	n/a		
Airlock Seals	Wear or Damage			✓
Belts	Free of Grease		n/a	
	Tension			n/a
Chains*	Tension			✓
Electrical	Connections for Material Build-Up; Clean as Needed			✓
	Contactors for Erosion or Pitted Points			✓
Motor Vents	Cleaned Out			✓

NOTE: DO NOT LUBRICATE CHAIN. Chain is permanently lubricated at the factory. Lubricating chain will cause it to wear faster because chain will collect dust and grit.

IN FIELD

Although all maintenance should be done on a regular basis at your shop rather than in the field, occasional field adjustments may be required. The following list of tools will allow field personnel to perform any necessary equipment adjustments.

TOOLS FOR USE IN FIELD

Screwdriver

Volt-Ohm Meter and Continuity Checker

Wrenches: 1/2", 7/16", 9/16", 3/4"

5/32", Allen, 1/8" Allen

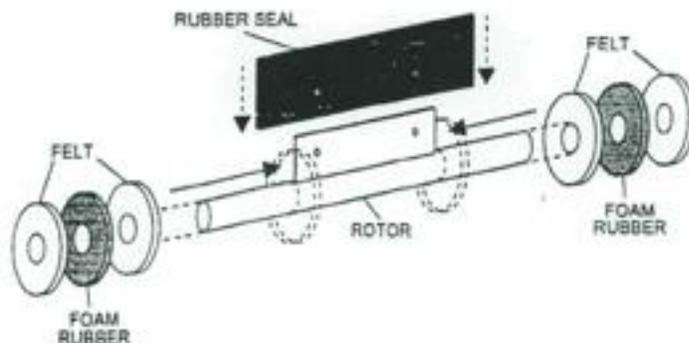
8" Crescent

AIRLOCK SEAL REPLACEMENT INSTRUCTIONS

Regular maintenance on your Accu1 blowing and spraying machine will extend the life of the equipment and provide better production. Replace all of your airlock seals as soon as a decrease in production occurs. Airlock seal life may vary dramatically because of such factors as type and quality of material used (the more abrasive the material, the shorter the seal life) and damaging objects like knives, hammers, or nails.

TO REPLACE SEALS:

1. Remove airlock drive chain.
2. Remove sprocket on airlock.
3. Loosen set screws on both airlock bearings.
4. Remove bearings on front and back airlock plate.
5. Remove front airlock plate (outlet tube plate).
6. Remove rotor.
7. Remove old seals.
8. Clean rotor and check for damage.
9. Slide felt and foam rings into place as shown below.
10. Put new seals into place with the thinner ply side against the plate that is welded to the rotor; tighten the bolts only slightly.
11. Square up edges and press rubber firmly against felt and foam rings; tighten bolts (bolts are too tight if rubber squeezes out between plates).
12. Check airlock housing for any damage before re-assembly.
13. Reassemble by reversing process.
14. Be sure to promptly replace worn agitator paddles, because worn paddles will also reduce machine production.



GLOSSARY OF MACHINE TERMS

AIRLOCK

A precision formed steel cylinder with rotors that create a pressurized seal with the material hopper to allow the air blower to forcefully propel the material through the hose.

ADHESIVE

A manufacturer-approved liquid, or chemical, that bonds the material being sprayed to the substrate.

BOND STRENGTH

The particular unit load that, when applied in the form of tension or compression with detach, or break, the adhesive assembly.

COVERAGE

The area, in square feet, that a given amount of insulation will insulate to a desired density, or R-value.

DENSITY

The weight of unit volume of material, usually expressed in pounds per cubic foot. It may be tested by blowing a 1' x 1' x 1' (0.3m x 0.3m x 0.3m) box full of material, and then determining the weight of the material. For a spray fireproofing, the test section is scrapped from the substrate being sprayed, and oven-dried before being weighed.

FIRE RESISTANCE RATING

The ability of a building construction assembly to resist the migration of a fire, or delay the damage that a fire may cause. Ratings are expressed in units of time, usually hours, based on all components of the tested assembly that is being installed.

INSULATION MACHINE

A machine which pneumatically breaks up the compressed materials and delivers them to the outlet of the hose in a smooth, even flow.

NODULE

An individual clump of material whose size and proper treatment determine the appropriate coverage. The nodule size is a function of the manufacturing process and the machine's material conditioning.

OVERBLOW

The excess height of insulation above the required minimum thickness, when the recommended bag label weight per square foot is installed.

R-VALUE

The measure of an insulation material's thermal performance. R-value equals thermal resistance; the higher the R-value, the better the insulation material's ability to resist heat flow. Manufacturers are required by law to state their insulation material's R-value on each bag.

TROUBLESHOOTING

<u>PROBLEM</u>	<u>CAUSE</u>	<u>REMEDY</u>
Will not run	1) Power cord not properly plugged in 2) Loose wire in power cord. 3) Main power switch off. 4) Circuit breakers won't stay on.	1) Remove plug, check ends, plug back in. 2) Check leads for fault – tighten. 3) Check switch – turn on. 4) Check for adequate power.
Runs without moving material	1) Material meter at zero setting 2) Clogged, kinked, or pinched hose stopping material flow. 3) Material blockage recurs. 4) Material blockage between blower and airlock chamber. 5) Material continues to clog hose.	1) Adjust for proper flow. 2) Check hose by leaving only blower on; clear flow passage. 3) Leave blower on continuously. 4) Take connector hose apart & purge with blower on. 5) Adjust material meter.
Low Air Flow	1) Dirty filters or screen. 2) Hose length longer than needed. 3) Improper airflow control set (if so equipped). 4) Seals in airlock (vane feeders) leaking or making noise.	1) Clean filters or screen. 2) Shorten hose to shortest usable length. 3) Check control setting and re-set. 4) Remove old seals and replace with new.
Remote will not operate (if so equipped)	1) Main power switch off. 2) Remote cord not plugged in. 3) Faulty cord. 4) Transformer burned out.	1) Check all settings & turn on. 2) Check connections & plug in. 3) Bypass remote cord, plug in & test at machine; replace faulty part. 4) Bypass remote cord, switch on & test at machine; replace faulty part. 5) Check remote cord to read 24 volts; replace transformer.
Blower runs but material feeder does not	1) Drive motor thermal protector needs to be re-set (after cooling). 2) Obstruction(s) in agitator hopper, or in airlock. 3) Electrical connectors loose at terminal block on panel edge.	1) Check rubber button on side of motor box; reset (noticeable click). 2) UNPLUG MACHINE; then remove obstruction(s) from inside. 3) Check wires from blower & motor; tighten terminals.
Blower runs slow & drive motor will not start	1) Chemical or temperature freeze in airlock chamber. 2) Low voltage to machine. 3) Faulty generator.	1) Lubricate airlock with WD-40 – light spray only *NEVER USE OIL* 2) Use 10-3 power cord and/or check power supply; provide higher voltage. 3) Use 10-3 power cord and/or check power supply; replace part.

Warranty

Manufacturer's Accu1 9118 blowing machines are sold with the following (5) year Limited Warranty:

Manufacturer guarantees to the original purchaser that the machine is made of good and durable materials and free from manufacturing defects at the time of shipment and to remain free from defects for a period of five years (except for normal wear items such as filters and seals which are explicitly excluded and the blower, motor and electrical components which are guaranteed as noted below) from the date of the factory shipment when operated under normal use and maintained in accordance with the Operators Manual. This warranty is void if the machine is not so operated or used for blowing material other than for which it was designed.

Manufacturer guarantees the blower, motor and the electrical components for a period of ninety days from the date of factory shipment.

If the product fails under normal operating conditions within the warranty period, it will be repaired or replaced at the sole discretion of the Manufacturer.

All shipment/delivery charges are the responsibility of the Purchaser.

Warranty claims are subject to inspection of the Manufacturer. If it is determined that the machine was not maintained in accordance with the Operations Manual or that it was used in a manner inconsistent with its designed use, the Manufacturer retains the right to void the Warranty at its sole discretion.

This Warranty is provided by the Manufacturer; Accu1Direct, Inc. – 138 Denslow Road, East Longmeadow, MA 01028 and is exclusive of any other warranty that may be available to the Purchaser.