OPERATION AND MAINTENANCE MANUAL

FOR

UNISUL’S ELECTRIC VOLU-MATIC™ III INSULATION BLOWING MACHINE

NOTE...

PLEASE READ THIS INSTRUCTION MANUAL THOROUGHLY. HAVE IT AT HAND WHEN YOU FIRST START THE MACHINE AND KEEP IT HANDY FOR FUTURE REFERENCE.

UPON RECEIPT OF YOUR MACHINE, CHECK IT CAREFULLY FOR ANY SHIPPING DAMAGE. USUALLY, DAMAGE WILL BE EVIDENT BY CLOSELY LOOKING AT THE MACHINE THROUGH THE CRATING MATERIAL AND BY CAREFULLY CHECKING THE CRATE ITSELF. IF THERE IS DAMAGE OR IF ANY OF THE PARTS ARE MISSING, NOTIFY THE DELIVERY TRUCKING COMPANY IMMEDIATELY AND FILE A CLAIM FOR DAMAGES.

IF THERE ARE ANY QUESTIONS ABOUT WHAT YOU HAVE RECEIVED OR IF YOU HAVE ANY OTHER PROBLEMS, FIRST CALL YOUR FACTORY AUTHORIZED REPRESENTATIVE, THEN CALL UNISUL AND WE WILL HELP IN ANY WAY WE CAN.

IF THE MACHINE AND PARTS SEEM TO BE IN GOOD CONDITION, CAREFULLY UNCRATE THE MACHINE.

READ THIS MANUAL THOROUGHLY BEFORE PUTTING YOUR ELECTRIC VOLU-MATIC™ III INSULATION BLOWING MACHINE INTO SERVICE!

MANUFACTURED BY:
UNISUL
101 HATFIELD RD.
WINTER HAVEN, FLORIDA 33880

7-17-99
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2-1-00
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**CHECK THE ACCESSORY KIT INCLUDED WITH NEW DELIVERED MACHINES FOR THE FOLLOWING.**

- 125' REMOTE CORD
- ONE COMPLETE SET OF SPARE FUSES
- FOR SINGLE SPEED MACHINES - TWO "B" SECTION DRIVE BELTS (SEE INITIAL START-UP)
- 4" - 3½" REDUCER
- BLOWER INTAKE SCREEN
- 4 ½ I. D. X 6' LENGTH RUBBER HOSE AND CLAMPS
- ACCESSORY BAG CONTAINING THE FOLLOWING; SIX SHEAR KEYS, #40 AND #50 CHAIN CONNECTOR LINK, #40 AND #50 CHAIN HALF LINK, AND 1/8, 5/32, 3'16 ALLEN WRENCHES.
ELECTRIC VOLU-MATIC III INSULATION BLOWING MACHINE

I. SPECIFICATIONS:

MODELS:

V30EI: 15 HP DRIVE MOTOR, SINGLE SPEED, SINGLE REMOTE ‘ON-OFF’

V30E2: 7.5 HP BLOWER MOTOR, 5 HP MECHANISM MOTOR, SINGLE SPEED, DUAL REMOTE ‘AIR ONLY-AIR AND MATERIAL’

V34EI: 15 HP DRIVE MOTOR, FOUR SPEED, SINGLE REMOTE ‘ON-OFF’

V34E2: 7.5 HP BLOWER MOTOR, 5 HP MECHANISM MOTOR, FOUR SPEED, DUAL REMOTE ‘AIR ONLY-AIR AND MATERIAL’

VOLTAGE:
SINGLE PHASE, 60 HERTZ, 208-230 VOLTS, 85 AMP SERVICE
THREE PHASE, 60 Hertz, 208-230/460 Volts, 50/30 AMP SERVICE
THREE PHASE, 50 Hertz, 220/380/460 Volts, 60/35/30 AMP SERVICE


ALL MACHINES:

24 VOLT REMOTE CONTROL, 18 INCH FEEDER, ROOTS-CONNERSVILLE BLOWER-270 CFM @ 2 PSI/6 PSI MAXIMUM, AIR CONVEYING SYSTEM WITH PRESSURE RELIEF VALVE SET @ 6 PSI, TEFC MOTORS, SPIRAL BEVEL GEAR SPEED REDUCER.

HEIGHT: 73.0 INCHES
LOAD HEIGHT: 60.0 INCHES
WIDTH: 56.38 INCHES
LENGTH: 79.38 INCHES
WEIGHT: 1900 POUNDS

FEED RATES:

FIBERGLASS: 25-35 LBS. MIN. @ 3.5 PSI
ROCKWOOL: 35-55 LBS. MIN. @ 4.5 PSI
CELLULOSE: 70-80 LBS. MIN. @ 2.0 PSI

WARNING: RECOMMENDED HOSE SIZES, TYPE, AND LENGTH MUST BE USED TO ACHIEVE MAXIMUM RESULTS. UNISUL CANNOT GUARANTEE PERFORMANCE OF THE VOLU-MATIC III MACHINE IF HOSES ARE UNDERSIZED, WORN, DAMAGED OR HOSES OTHER THAN THOSE WE RECOMMEND ARE USED.

BEFORE YOU RUN THIS MACHINE...

PLEASE STUDY THE REST OF THIS MANUAL
WHEN ORDERING PARTS OR CORRESPONDING WITH US ABOUT THIS MACHINE, PLEASE GIVE US THE FOLLOWING INFORMATION AS FOLLOWS:

MACHINE MODEL NO. ________________________________

MACHINE SERIAL NO. ________________________________

BLOWER MOTOR MANUFACTURER ________________________________

BLOWER MOTOR MODEL NO., SERIAL NO. ________________________________

BLOWER MANUFACTURER ________________________________

BLOWER MODEL NO., SERIAL NO. ________________________________

TRANSMISSION MANUFACTURER ________________________________

TRANSMISSION MODEL NO., SERIAL NO. ________________________________

GEARBOX MOTOR MANUFACTURER ________________________________

GEARBOX MOTOR MODEL NO., SERIAL NO. ________________________________

GEARBOX MANUFACTURER ________________________________

GEARBOX MODEL NO., SERIAL NO. ________________________________

OPTIONAL EQUIPMENT INSTALLED

For orders and information, use free Unisul "Hot line" 1-800-237-7841
II. INTRODUCTION


THE VOLU-MATIC III MACHINE IS POWERED BY TWO ELECTRIC MOTORS, ONE MOTOR DRIVES THE BLOWER FOR AIR THAT MOVES THE MATERIAL DOWN THE HOSE TO ITS DESTINATION AND THE OTHER MOTOR DRIVES MACHINE MECHANISMS THAT CONDITION AND CONVEY THE MATERIAL TO THE AIRSTREAM. THE MACHINE CAN BE SET AT DIFFERENT SPEED SETTINGS WHEN EQUIPPED WITH A FOUR SPEED TRANSMISSION TO MATCH THE APPLICATORS ABILITY AND/OR MATERIAL CHARACTERISTICS, SEE THE RECOMMENDED START SETTINGS IN THE OPERATION SECTION.

THE HOPPER AREA HAS ROTATING COMPONENTS TO CONDITION 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 MATERIAL INTO THE AIRSTREAM WHERE IT ENTERS THE HOSE AND FLOWS TO THE HOSE EXIT. ANOTHER FEATURE ON THE VOLU-MATIC III MACHINE TO CONDITION MATERIAL IS A SLIDE GATE THAT LENGTHENS THE TIME THE MATERIAL IS STIRRED IN THE HOPPER BEFORE ENTERING THE SHREDDER HOUSING. AIR VOLUME CAN BE CONTROLLED INDEPENDENTLY WHICH ALSO OPTIMIZES MATERIAL COVERAGE.
SEVERAL SAFETY FEATURES HAVE BEEN ADDED TO THE VOLU-MATIC III MACHINE TO ENSURE OPERATOR SAFETY. STUDY THE SAFETY SECTION THOROUGHLY SO THAT ALL THE FEATURES CONCERNING SAFETY ARE UNDERSTOOD. KEEP ALL THESE FEATURES FUNCTIONAL SO THAT NO PROBLEMS WILL BE EXPERIENCED DURING MACHINE OPERATION.

DURING DISCUSSION THROUGHOUT THE MANUAL, IF YOU ARE NOT FAMILIAR WITH MACHINE COMPONENT TERMS, GO TO THE PARTS LIST SECTION TOWARD THE BACK OF THE MANUAL, FIND THE ITEM NUMBER AND SEARCH THE PICTURES SO THAT YOU CAN GET FAMILIAR WITH THE VOLU-MATIC III MACHINE.

III.  SAFETY

THE ELECTRIC VOLU-MATIC III OPEN BLOW MACHINE IS DESIGNED WITH FULL GUARDS AND DISCONNECTS FOR YOUR SAFETY.

EVERY ELECTRIC VOLU-MATIC III HAS THIS WARNING DECAL DISPLAYED IN A PROMINENT PLACE.

![Warning Sign](image)

OBSERVE THESE PRECAUTIONS AND BE SURE YOUR FELLOW WORKERS DO ALSO.

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.
ALL ELECTRIC VOLU-MATIC III MACHINES ARE FACTORY EQUIPPED WITH FRONT, REAR, AND SIDE GUARDS. THE TOP OF THE MACHINE IS NOT GUARDED SINCE IT POSES NO SAFETY THREAT AS IT STANDS FOR NORMAL OPEN BLOW OPERATIONS. IF HOWEVER, THE ELECTRIC VOLU-MATIC III IS INSTALLED IN A FACTORY WHERE PEOPLE ARE ABOVE THE MACHINE, A TOP GUARD WILL HAVE TO BE EQUIPPED.

THE FRONT SWING GATE GUARDS 1 ARE EQUIPPED WITH A QUARTER TURN RECESSED T-HANDLE LATCH. THESE GUARDS SHOULD NOT BE OPENED WHILE THE ELECTRIC VOLU-MATIC III MACHINE IS IN OPERATION. IF THE GUARD IS OPENED, THERE IS A SAFETY SWITCH 2 MOUNTED TO THE SWING GATE GUARD WHICH WILL STOP ALL MACHINE MECHANISMS.

DURING MACHINE OPERATION, ALWAYS UNPLUG THE REMOTE CORD FROM THE RECEPTACLE 3 AND MOVE THE DISCONNECT SWITCH HANDLE 4 TO THE OFF (DOWN) POSITION BEFORE ATTEMPTING ANY TYPE OF MACHINE MAINTENANCE OR ADJUSTMENTS.

ALWAYS MAKE SURE THAT THE POWER CORD IS UNPLUGGED AND THE DISCONNECT SWITCH HANDLE IS IN THE OFF (DOWN) POSITION BEFORE ATTEMPTING TO OPEN THE PANEL DOOR 5. THE HANDLE IS INTERLOCKED SO THAT THE DOOR WILL NOT OPEN UNLESS THE HANDLE IS ROTATED TO THE FULL OFF POSITION.

THIS SAFETY FEATURE IS TO PROTECT EVERYONE FROM SEVERE ELECTRIC SHOCK, BURNS, AND UNDER CERTAIN CONDITIONS, ELECTROCUTION. OBSERVE THE FUSE AND
OVERLOAD SIZE LABELS WITHIN THE ELECTRIC PANEL. DO NOT "OVER-FUSE" OR INCREASE THE OVERLOAD OR IN ANY WAY BYPASS THE FUSES IN THE ELECTRIC PANEL. THESE ARE SIZED TO PROTECT YOU AND YOUR ELECTRIC VOLU-MATIC III MACHINE.

AN EMERGENCY STOP BUTTON IS PROVIDED AT THE LOADING STATION. THIS RED BUTTON WILL STOP ALL MACHINE MECHANISM OPERATION WHEN PUSHED IN, OVERRIDING ALL OTHER CONTROLS. THE RED BUTTON MUST BE PULLED OUT TO RESET ON.

USING A "GROUND FAULT" DETECTOR OR SIMILAR DEVICE, CHECK TO BE SURE THAT THE VOLU-MATIC III MACHINE IS ELECTRICALLY GROUND AT ALL TIMES AND BE SURE TO ELIMINATE ANY PUDDLES OF WATER IN THE IMMEDIATE WORK AREA.

ALL SAFETY FEATURES ARE INCORPORATED INTO THE ELECTRIC VOLU-MATIC III TO PROTECT EVERYONE FROM SERIOUS INJURY. OPERATE YOUR MACHINE ACCORDING TO THE INSTRUCTIONS IN THIS MANUAL WITH GUARDS IN PLACE AND SECURELY LATCHED. OPERATION WITH ANY GUARDS REMOVED OR OPEN CAN RESULT IN INJURY TO OR LOSS OF FINGERS, HANDS, ARMS, TOES, FEET, LEGS, HAIR, AND EVEN YOUR EYES.

UNDER NO CIRCUMSTANCES SHOULD YOUR HAND, A STICK OR BROOM BE USED TO FORCE MATERIAL DOWN INTO THE HOPPER. THE ELECTRIC VOLU-MATIC III MACHINE IS DESIGNED TO BE SELF FEEDING AND REQUIRES NO OUTSIDE ASSISTANCE.

UNISUL RECOMMENDS THAT THE OPERATOR WEAR AN APPROVED DUST MASK OR RESPIRATOR FOR THEIR COMFORT AND PROTECTION.

ALL MACHINES HAVE BEEN TESTED AND DO NOT EXCEED APPROVED LEVELS OF SOUND FOR EIGHT HOURS EXPOSURE. TEST RESULTS ARE FOR SINGLE MACHINES AT OUR FACTORY AND WE CANNOT GUARANTEE JOB SITE CONDITIONS WILL DUPLICATE OUR RESULTS. NOISE LEVELS SHOULD BE CHECKED AT EACH JOB SITE AND OPERATORS PROVIDED WITH HEARING PROTECTION IF THEY EXCEED ACCEPTABLE STANDARDS.
IV. **MACHINE START UP**

**PRELIMINARY CHECKS**

1. **BE SURE TO REMOVE ALL CRATING FROM MACHINE FRAME, THE SKIDS SHOULD BE REMOVED WHEN THE MACHINE IS SET UP AT THE POINT OF OPERATION.**

2. **INSPECT HOPPER AREA FOR LOOSE OBJECTS.**

3. **MAKE SURE THAT THE CHAIN AND BELT DRIVES ARE CLEAR OF LOOSE OBJECTS. CHECK FOR ANY COMPONENTS THAT MAY HAVE VIBRATED LOOSE, SUCH AS: AIR STREAM CONNECTIONS, WIRING CONNECTIONS, GUARDS, ETC.**

4. **ON SINGLE SPEED MACHINES, THE DRIVE BELTS FROM THE MOTOR PULLEY 7 TO GEARBOX PULLEY 8 WERE SHIPPED IN THE ACCESSORY BOX FOR NEW DELIVERED MACHINES TO PREVENT FEEDER SEAL DAMAGE THAT COULD BE CAUSED BY IMPROPER ROTATION DURING INITIAL START UP.**

5. **OPEN THE MATERIAL CONDITIONING SLIDE 9 TO THE NUMBER 18 POSITION, FULLY OPEN.**

6. **CHECK THE TRANSMISSION 10, GEARBOX 11 AND BLOWER 12 OIL LEVELS. REFER TO THE PREVENTIVE MAINTENANCE SECTION FOR PROPER FLUID AND LEVELS. WHEN CHECKING THE OIL IN THE BLOWER, TURN THE BRASS VALVE 13 90 DEGREES TO CHECK. A SMALL AMOUNT SHOULD APPEAR INDICATING SUFFICIENT OIL.**
7. CONNECT BLOWER INLET SCREEN 14 SHIPPED IN ACCESSORY BOX OF NEW DELIVERED MACHINES TO BLOWER INLET CONNECTION.

8. MAKE SURE THAT THE AIR BLEED CONTROL VALVE 15 IS FULLY CLOSED. THE pointer SHOULD FACE THE CLOSED LABEL.

9. CHECK THE FOLLOWING CHART TO MAKE SURE THAT THE POWER CORD IS ADEQUATELY SIZED BEFORE PURCHASING:

<table>
<thead>
<tr>
<th></th>
<th>CORD LENGTH</th>
<th>WIRE SIZE</th>
<th>WIRE TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE PHASE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50'</td>
<td>6/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100'</td>
<td>4/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150'</td>
<td>4/3</td>
<td></td>
<td>THHN</td>
</tr>
<tr>
<td>THREE PHASE</td>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>50'</td>
<td>8/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100'</td>
<td>6/4</td>
<td></td>
<td>THW</td>
</tr>
<tr>
<td>150'</td>
<td>6/4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


11. CLOSE AND SECURE GUARDS BEFORE NEXT STEP.
INSTALLATION

1. LOCATE MACHINE SO THAT HOSE RUN LENGTH IS AS MINIMAL AS POSSIBLE.

2. MAKE SURE ADEQUATE ROOM IS AVAILABLE FOR LOADING THE MACHINE, SEE LOADING UNDER OPERATION SECTION.

3. REFER TO THE FOLLOWING DRAWING FOR FRAME STRUCTURAL MOUNTING POINTS AND ELECTRICAL POWER CORD CONNECTION, BE SURE TO REMOVE SKIDS AND BOLT MACHINE IN PLACE.

4. PURCHASE AND INSTALL TOP GUARD IF MACHINE IS LOCATED IN A MANNER WERE PEOPLE ARE ABOVE THE MACHINE FRAME.

5. HAVE A QUALIFIED INDUSTRIAL ELECTRICIAN CONNECT THE POWER CORD TO THE SERVICE DISCONNECT AND GROUND TO ELECTRIC PANEL THROUGH STRAIN RELIEF 17.
INITIAL START UP

1. MOVE DISCONNECT SWITCH HANDLE TO THE ON (UP) POSITION AND PULL THE EMERGENCY STOP BUTTON TO THE ON POSITION, LEAVE SELECTOR SWITCH IN THE OFF POSITION. PRESS GREEN START PUSH BUTTON 18 TO CHECK BLOWER MOTOR ROTATION (SEE ROTATION ARROW ON MOTOR). TURN SELECTOR SWITCH TO MACHINE TO CHECK MECHANISM MOTOR ROTATION (SEE ROTATION ARROW ON MOTOR). ALL ELECTRIC VOLU-MATIC III MACHINES ARE PREWIRED FOR PROPER ROTATION AT THE FACTORY, BUT THIS SHOULD BE DOUBLE CHECKED ON START UP. SINGLE PHASE SHOULD NEVER BE A PROBLEM, BUT IF IN ERROR, ROTATION WILL HAVE TO BE CHANGED IN THE MOTOR CONDUIT BOX. THREE PHASE MAY IN SOME INSTANCES BE IN ERROR, JUST REVERSE OR INTERCHANGE ANY TWO CURRENT CARRYING LEADS AT THE POWER SOURCE TO CHANGE ROTATION.

2. ONCE ROTATION IS VERIFIED TO BE CORRECT, TURN SELECTOR SWITCH TO THE OFF POSITION, PUSH EMERGENCY STOP BUTTON IN TO THE OFF POSITION AND MOVE THE DISCONNECT SWITCH HANDLE TO THE OFF (DOWN) POSITION. ROLL THE DRIVE BELTS SUPPLIED IN THE ACCESSORY BOX ONTO THE MOTOR AND GEARBOX PULLEYS, ROLL BELT ONTO LARGER PULLEY.

3. WITH THE MECHANISM DRIVE BELTS ON AND ALL POWER STILL OFF, ENGAGE TRANSMISSION 19 INTO FIRST GEAR, SEE OPERATION SECTION.
4. CLEAR AREA IN FRONT OF AIRLOCK FEEDER OUTLET 20 FOR TESTING.

5. ONCE TRANSMISSION IS IN GEAR, MOVE THE DISCONNECT SWITCH HANDLE TO THE ON (UP) POSITION, PULL EMERGENCY STOP BUTTON TO THE ON (OUT) POSITION. LEAVE SELECTOR SWITCH IN THE OFF POSITION. PRESS GREEN START PUSH BUTTON AND THE BLOWER SHOULD COME ON, TURN SELECTOR SWITCH TO MACHINE - CHECK THAT THE FEEDER AND HOPPER COMPONENTS ARE TURNING, FOR ANY ROTATION PROBLEMS, CHECK THE TROUBLE SHOOTING SECTION OR CALL UNISUL.

6. TURN SELECTOR SWITCH TO THE OFF POSITION, CONNECT REMOTE CONTROL CORD (BE SURE REMOTE CORD TOGGLE SWITCH IS IN THE MIDDLE POSITION ON DUAL REMOTE EQUIPPED MACHINES) AND TURN SELECTOR SWITCH TO REMOTE - BLOWER SHOULD SHUT OFF. MOVE TOGGLE SWITCH IN REMOTE CORD BACK (TOWARD CORD) AND THE BLOWER ONLY WILL RUN, MOVE THE TOGGLE SWITCH ALL THE WAY FORWARD (TOWARD END OF HOUSING) AND ALL MECHANISMS WILL RUN. ALWAYS MOVE TOGGLE SWITCH IN THE DUAL REMOTE CORD TO THE MIDDLE (OFF) POSITION BEFORE TURNING THE ELECTRIC VOLU-MATIC III MACHINE OFF. SINGLE SPEED MACHINES ARE EQUIPPED WITH AN ON-OFF ONLY REMOTE CORD.

7. WITH EVERYTHING OPERATING SATISFACTORY, TAKE SOME TIME TO GET TO KNOW YOUR ELECTRIC VOLU-MATIC III MACHINE. ENGAGE AND DISENGAGE THE REMOTE CORD NOTICING THE DRIVES START AND STOP. WITH THE CHAIN DRIVES ON, OPEN AND CLOSE THE SWING GATE GUARDS NOTICING THE DRIVES START AND STOP.

8. UPON COMPLETION OF THE INITIAL START UP PROCEDURES; TURN THE REMOTE CORD TOGGLE SWITCH OFF AND UNPLUG THE CORD, PUSH THE EMERGENCY STOP BUTTON OFF (IN), AND MOVE THE DISCONNECT SWITCH TO THE OFF (DOWN) POSITION. THE ELECTRIC VOLU-MATIC III MACHINE IS NOW READY FOR SERVICE.

9. FOR ANY PROBLEMS ENCOUNTERED DURING MACHINE START UP, CHECK THE TROUBLE SHOOTING SECTION OR CALL UNISUL.
V. OPERATION

USE PRELIMINARY CHECKS AND INITIAL START UP PROCEDURES AS A CHECK LIST FOR THE ELECTRIC VOLUMATIC III EACH DAY. AT THE JOB SITE, CONNECT HOSE PAYING PARTICULAR ATTENTION TO RECOMMENDED HOSE SIZE, LENGTH, AND TYPE AS SPECIFIED IN THE FOLLOWING TABLE.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>MINIMUM HOSE DIAMETER</th>
<th>MINIMUM HOSE LENGTH-150'</th>
<th>HOSE TYPE MANUFACTURER</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLASS</td>
<td>4&quot;</td>
<td>FIRST 50'</td>
<td>UNI-FLEX*</td>
</tr>
<tr>
<td>ROCKWOOL</td>
<td>3¾&quot; TO 4&quot;</td>
<td>NEXT 100'</td>
<td>SPIRALOCK*</td>
</tr>
<tr>
<td>CELLULOSE</td>
<td></td>
<td></td>
<td>UNI-FLEX*</td>
</tr>
</tbody>
</table>

* SIMILAR TYPE AND STYLE MAY BE SUBSTITUTED, CONSULT SALES DEPARTMENT.

HOSE

CONNECT HOSE TO OUTLET TUBE THAT IS ATTACHED TO THE FEEDER. MAKE SURE THAT THE HOSE RUNS STRAIGHT FOR AT LEAST TEN FEET BEFORE CURVING HOSE TO DESIRED LOCATION. SHARP BENDS IN THE HOSE CAN RESULT IN POOR COVERAGE AND CAUSE EXCESSIVE HOSE AND FEEDER WEAR.

WARNING:

RECOMMENDED HOSE SIZES, TYPES AND LENGTH MUST BE USED TO ACHIEVE MAXIMUM RESULTS. UNISUL CANNOT GUARANTEE PERFORMANCE OF THE ELECTRIC VOLUMATIC III MACHINE IF HOSES ARE UNDERSIZED OR WORN OR DAMAGED OR HOSES OTHER THAN THOSE RECOMMENDED ARE USED.

REPEATED WARNINGS ABOUT CHOICE OF HOSE MAY SEEM TO BE AN ATTEMPT TO SELL OUR BRANDS, BUT WE MUST STRESS THE IMPORTANCE OF PROPER HOSE SELECTION FOR THE TYPE MATERIAL AND OPERATION. A ROUGH BORE CORRUGATED HOSE IS NECESSARY FOR GLASS AND CELLULOSE FIBERS SINCE SMOOTH BORE RUBBER OR PLASTIC HOSE WILL ROLL SHREDDED MATERIAL INTO SMALL, TIGHT BALLS. YOUR ELECTRIC VOLUMATIC III MACHINE HAS BEEN ENGINEERED, WHEN PROPERLY ADJUSTED, TO CONDITION FIBERS FOR OPTIMUM COVERAGE. IMPROPER HOSE SELECTION WILL DEGRADE FIBERS CONDITIONED BY THE MACHINE AND REDUCE INSULATION VALUE IN BLOWN MATERIAL. DO NOT DEVIATE FROM HOSE DIAMETERS, LENGTHS AND TYPES AS SPECIFIED IN THE TABLE FOR BEST RESULTS.
LOADING

THE OPERATOR LOADS THE MACHINE FROM A STANDING POSITION ON THE FLOOR DEPOSITING BAGS OF MATERIAL ONTO THE DROP GATE 21. PULL THE DROP GATE SHARPLY TOWARD YOU TO LAY DOWN FOR LOADING AND THEN DEPOSIT THE MATERIAL INTO THE HOPPER. DO NOT BUILD SCAFFOLDING OR USE A FOOT STOOL TO LOAD MATERIAL INTO THE ELECTRIC VOLU-MATIC III MACHINE. THIS MERELY MOVES THE OPERATOR CLOSER TO THE ROTATING COMPONENTS IN THE HOPPER AND PROVIDES A WAY TO LOSE BALANCE AND FALL. LOAD THE HOPPER WITH TWO TO THREE BAGS OF MATERIAL, BEING PARTICULARLY CAREFUL NOT TO LEAVE PIECES OF BAG IN THE MATERIAL SINCE THIS WILL CLOG AND STALL YOUR MACHINE.

WARNING: DO NOT ATTEMPT TO REMOVE ANY FOREIGN OBJECT FROM THE MACHINE UNTIL IT IS COMPLETELY SHUT DOWN; UNPLUG POWER CORD, UNPLUG REMOTE CORD, PUSH EMERGENCY STOP BUTTON IN, SELECTOR SWITCH OFF, AND DISCONNECT SWITCH HANDLE TO OFF POSITION. FAILURE TO DO SO WILL RESULT IN SERIOUS INJURIES BY THE ROTATING COMPONENTS IN THE HOPPER.

GATE SETTINGS

REFER TO THE FOLLOWING CHART AND SELECT A PROPER GATE SETTING FOR MATERIAL AND TYPE OF OPERATION. WITH THE ELECTRIC VOLU-MATIC III SHUT DOWN, LOOSEN THUMB SCREW 22 AND MOVE MATERIAL SLIDE GATE 23 SO THAT HANDLE 24 LINES UP WITH DESIRED SETTING ON SCALE 25 (SCALE IS CALIBRATED IN INCHES OF OPENING). WITH GATE SET, TIGHTEN THUMB SCREW TO PREVENT CHANGES IN MATERIAL GATE OPENING DUE TO VIBRATION. NO ADJUSTMENTS SHOULD EVER BE ATTEMPTED WHILE MACHINE IS OPERATING. USE THE RECOMMENDED SETTINGS AS A STARTING GUIDE ONLY. VARIATIONS IN MATERIAL OF THE SAME TYPE AND EVEN BATCHES FROM A COMMON MANUFACTURER MAY REQUIRE ADJUSTMENT.
# Electric Volu-Matic III Recommended Starting Settings

<table>
<thead>
<tr>
<th>Operation</th>
<th>Material</th>
<th>Gate Setting</th>
<th>Transmission Gear</th>
<th>Air Bleed Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Blow</td>
<td>Fiberglass</td>
<td>16 Inches</td>
<td>3rd</td>
<td>2.0-3.5 PSI</td>
</tr>
<tr>
<td></td>
<td>Cellulose</td>
<td>16 Inches</td>
<td>3rd</td>
<td>2.0-3.5 PSI</td>
</tr>
<tr>
<td></td>
<td>Rockwool</td>
<td>12 Inches</td>
<td>2nd</td>
<td>4.5-5.5 PSI</td>
</tr>
</tbody>
</table>

**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.

**General Instructions:**

1. Make transmission and slide gate settings, plug in remote cord and start machine (make sure all guards are in place) then...
2. Vary the air bleed pressure first. If you cannot get the desired results by opening or closing the air control lever then...
3. Vary the by-pass gate next, if you cannot get the desired results by opening or closing the by-pass gate, then...
4. Go to the next highest or lowest speed on the transmission and start with varying the air bleed pressure again.

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# Four Speed Transmission

Select an appropriate gear for material and operation from the chart and shift lever 26 into gear in accordance with decal instructions on instrument panel. Since the transmission 27 is not synchronous, it may be necessary to pull the gears through by hand, using pulley 28, so that gears will mesh, allowing you to change gears. This should never be attempted or gears shifted while machine is operating.
AIR BLEED SYSTEM

AIR FLOW RATE MAY BE CONTROLLED WITH THE AIR BY PASS BLEED CONTROL VALVE 29 WHILE MONITORING SYSTEM PRESSURE ON GAUGE 30. SEE THE CHART FOR CORRECT AIR BLEED SYSTEM PRESSURE FOR TYPE OPERATION AND MATERIAL. THE SYSTEM BACK PRESSURE MUST BE SET UNDER LOAD WITH YOUR ELECTRIC VOLU-MATIC III MACHINE OPERATING WITH FULL LENGTH AND PROPER SIZE HOSE WHILE MATERIAL IS BEING BLOWN. ALWAYS START WITH THE VALVE IN THE CLOSED POSITION BEFORE ATTEMPTING ANY ADJUSTMENT.

COVERAGE-OPEN BLOW

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 79 SQ./FT PER BAG AT A DEPTH OF 8 3/4 INCHES AND A WEIGHT OF 0.444 LBS/FT TO ACHIEVE AN INSULATION VALUE OF R-19. IF YOU OPENED A BAG OF MATERIAL AND HAND DISTRIBUTED IT TO A DEPTH OF 8 3/4 INCHES, IT WOULD ONLY COVER 15-16 SQ./FT. FIBER MUST BE WORKED OR CONDITIONED BY YOUR ELECTRIC VOLU-MATIC III TO ACHIEVE COVERAGE OF 79 SQ./FT PER BAG.

COVERAGE DECREASES WHEN FEED RATES ARE TOO LOW AND MATERIAL IS OVER-WORKED BY THE MACHINE MECHANISM (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.

AN OPTION TO COVERAGE PROBLEMS CAN ALSO BE CONTROLLED TO SOME EXTENT WITH THE USE OF A STATOR BAR IN THE SHREDDER HOUSING. REMOVE COVER PLATE 31 AND INSERT STATOR BAR, MAKE SURE HAMMERS CLEAR PINS BEFORE BOLTING DOWN.
THIS ADJUSTMENT SHOULD BE DONE ONLY AFTER VARIOUS SETTINGS OF THE AIR BY PASS CONTROL VALVE, SLIDE GATE, AND TRANSMISSION SPEED DO NOT GAIN DESIRED RESULTS. THE STATOR BAR CAN HELP INCREASE COVERAGE, BUT IT CAN ALSO DECREASE COVERAGE AND SLOW THE FEED RATE OF THE MACHINE.

GENERAL

YOUR ELECTRIC VOLU-MATIC III MACHINE IS PRIMARILY A MATERIAL CONDITIONING AND "AIR CONVEYING" SYSTEM. FIBERS ARE CONDITIONED OR "OPENED" TO THE PROPER DENSITY BY MECHANISMS IN THE HOPPER, THE SHREDDER, AND THEN AIR CONVEYED INTO SIDE WALL OR ATTIC BY THE BLOWER, ROTARY AIRLOCK FEEDER AND HOSE.

SUMMARY

- PERFORM PRELIMINARY CHECKS.
- PERFORM INITIAL START UP.
- SELECT PROPER HOSE.
- LOAD MATERIAL INTO HOPPER.
- ADJUST SLIDE GATE.
- ADJUST TRANSMISSION.
- START MACHINE.
- TURN SELECTOR SWITCH TO REMOTE.
- PLUG IN REMOTE CORD, MAKE SURE TOGGLE SWITCH IS IN MIDDLE (OFF) POSITION.
- ADJUST AIR ONCE MATERIAL REACHES HOSE END.
- CHECK COVERAGE.

VI. PREVENTIVE MAINTENANCE

GENERAL

MAKE SURE THAT THE DISCONNECT SWITCH IS IN THE OFF (DOWN) POSITION, AND THE POWER CORD IS DISCONNECTED BEFORE ATTEMPTING ANY OF THE FOLLOWING MAINTENANCE PROCEDURES. THE ONLY EXCEPTION IS THE BLOWER RELIEF VALVE WHICH REQUIRES NO ENTRANCE INTO THE MACHINE FRAME.

CHECK FOR LOOSE NUTS AND BOLTS, CHECK FOR SLACK AND CONDITION OF BELTS AND CHAIN PERIODICALLY, ESPECIALLY AFTER THE FIRST FEW DAYS OPERATION.
DAILY MAINTENANCE

1. VISUALLY INSPECT THE ELECTRIC VOLUMATIC III MACHINE THAT ALL GUARDS ARE IN PLACE AND SECURELY LATCHED. CHECK THAT NO FOREIGN OBJECTS HAVE ENTERED CHAIN AND BELT DRIVES AND FOR ITEMS IN THE HOPPER AREA.

2. EMPTY HOPPER COMPLETELY AT THE END OF EACH DAYS OPERATION.

3. CHECK AND CLEAN BLOWER INTAKE SCREEN 32 AND AS REQUIRED DURING OPERATION, THIS SCREEN SHOULD BE KEPT CLEAN AT ALL TIMES.

4. VISUALLY INSPECT SHREDDER HAMMERS THROUGH ACCESS WINDOW 33. ACCESS WINDOW MAY BE REMOVED TO CLEAR BLOCKAGES OCCURRING IN THIS AREA DURING OPERATION.

5. PERFORM INITIAL START-UP PROCEDURES FIVE AND SIX TO CHECK THAT MACHINE FUNCTIONS ARE WORKING PROPERLY BEFORE OPERATION.

6. MAKE SURE THE SWING GATE SAFETY SWITCH AND EMERGENCY STOP BUTTON ARE FUNCTIONAL.

AIRLOCK FEEDER

THE AIRLOCK FEEDER WILL REQUIRE PERIODIC MAINTENANCE TO PROLONG THE LIFE OF THE ASSEMBLY SINCE STEEL WILL WEAR WHEN ABRASIVE MATERIALS AND AIR VELOCITY ARE MIXED. FEEDER SEALS MUST BE CHANGED EVERY 250 HOURS OF OPERATION OR APPROXIMATELY EVERY 1½ MONTHS IF YOUR ELECTRIC VOLUMATIC III MACHINE IS OPERATED 8 HOURS A DAY FIVE DAYS A WEEK, OR SOONER, DEPENDING UPON THE TYPE OF MATERIAL. FAILURE TO CHANGE SEALS ON SCHEDULE WILL RESULT IN EXCESSIVE WEAR AND REPLACEMENT OF THE FEEDER ASSEMBLY.
CHANGE THE VOLU-MATIC™ III AIRLOCK FEEDER SEALS AS FOLLOWS:

A. MAKE SURE YOU HAVE A COMPLETE SET OF SEALS (SIX) BEFORE THE JOB IS STARTED.

B. MAKE SURE ALL POWER IS DISCONNECTED; DISTRIBUTOR WIRE ON ENGINE, MASTER SWITCH OFF, REMOTE CORD, POWER CORD, DISCONNECT SWITCH, ETC.

C. REMOVE NECESSARY GUARDS TO DO THE JOB AFTER POWER IS DISCONNECTED, BE SURE THAT ALL GUARDS ARE INSTALLED AND SECURE WHEN JOB IS COMPLETE.

D. 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.

E. REPLACE EXCESSIVELY WORN OR DAMAGED FEEDER BARREL AND/OR END PLATES AND BEARING FELT SEALS FOR OPTIMUM PERFORMANCE FROM YOUR VOLU-MATIC MACHINE. EXCESSIVELY WORN PARTS ARE CONSIDERED TO BE WHEN 25% OF METAL THICKNESS HAS WORN AWAY, SEE REPLACE THE FEEDER END PLATES.

F. SUPPLIES AND TOOLS FOR SEAL CHANGE:
   - SPARE 1/4"-20 x 5/8" LENGTH GRADE FIVE BOLTS AND LOCK WASHERS.
   - SPRAY SILICON, NEVER-SEIZE SHAFT LUB, PENETRATING OIL, EMERY CLOTH,
   - FEEDER CRANK HUB AND ROD, DEAD BLOW HAMMER, SMALL PUNCH AND BALL PEEN HAMMER, VICE GRIP PLIERS, PRY BARS, FLAT FILE, MISCELLANEOUS SOCKETS AND OPEN END WRENCHES, MISCELLANEOUS HEX HEAD ALLEN WRENCHES.

1. REMOVE DRIVE CHAIN A, FEEDER SPROCKET B, AND CHAIN IDLER ASSEMBLY C.

2. LOOSEN SET SCREWS IN THE BEARING COLLAR D ON THE INLET END PLATE ONLY.

3. REMOVE MOUNTING BOLTS IN OUTLET END PLATE E AND DRIVE ROLL PINS OUT OF FEEDER ASSEMBLY.

4. USE PRY BARS BETWEEN END PLATE AND FEEDER BARREL TO BRING ENTIRE ROTOR ASSEMBLY OUT. CLEAN, FILE, AND POLISH ROTOR SHAFT G. LOOSEN SET SCREWS IN BEARING COLLAR AND SLIDE END PLATE OFF ROTOR SHAFT.
5. REMOVE THE BOLTS THAT HOLD THE BACKING PLATE H AND SEAL J TO THE ROTOR ASSEMBLY. CLEAN THE ROTOR VANE SURFACE BEFORE PLACING IN A NEW SEAL. BOLT ON BACKING PLATE MAKING SURE NOT TO OVER TIGHTEN DISTORTING THE SEAL.

6. APPLY SPRAY SILICON TO EDGES OF NEW RUBBER SEALS AND SURFACE OF FEEDER BARREL. APPLY NEVER-SEIZE LUBE ON INLET BEARING RACE.

7. INSERT ROTOR ASSEMBLY INTO FEEDER BARREL, ROTATING COUNTERCLOCKWISE USING CRANK HUB J AND ROD K WHILE PUSHING WITH FREE HAND. MAKE SURE BEARING FELT AT INLET END PLATE DOES NOT PINCH BETWEEN ROTOR SHAFT AND BEARING RACE.

8. ONCE ROTOR SHAFT ENTERS THE INLET BEARING, IT MAY BE NECESSARY TO USE A DEAD BLOW SOFT HAMMER TO FIT ROTOR ALL THE WAY IN THE FEEDER WHILE ROTATING. PUSH ROTOR AS FAR IN AS POSSIBLE WITH SEALS BEGINNING TO BEND OVER ON THE SIDE AGAINST THE INLET END PLATE.

9. DRIVE ROLL PINS INTO END PLATE BEFORE SLIDING ON ROTOR SHAFT. ALIGN TO EXISTING HOLES AND HAMMER IN, USE VISE GRIP PLIERS TO DRAW END PLATE UP TO RUBBER SEALS.

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 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. INSTALL DRIVE COMPONENTS AND ANY GUARDS REMOVED. DISCARD OLD SEALS.
CHANGE THE VOLU-MATIC™ III SIDE ACCESS DOOR AIRLOCK FEEDER SEALS AS FOLLOWS:

A. MAKE SURE YOU HAVE A COMPLETE SET OF SEALS (SIX) BEFORE THE JOB IS STARTED.

B. MAKE SURE ALL POWER IS DISCONNECTED; DISTRIBUTOR WIRE ON ENGINE, MASTER SWITCH OFF, REMOTE CORD, POWER CORD, DISCONNECT SWITCH, ETC.

C. REMOVE NECESSARY GUARDS TO DO THE JOB AFTER POWER IS DISCONNECTED, BE SURE THAT ALL GUARDS ARE INSTALLED AND SECURE WHEN JOB IS COMPLETE.

D. ONCE THE DOOR ON THE FEEDER 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. A THOROUGH INSPECTION WILL REQUIRE REMOVAL OF ALL SEALS BEFORE INSTALLING A NEW SET.

E. REPLACE EXCESSIVELY WORN OR DAMAGED FEEDER BARREL AND/OR END PLATES AND ROTOR SHAFT FELT SEALS FOR OPTIMUM PERFORMANCE FROM YOUR VOLU-MATIC III MACHINE. EXCESSIVELY WORN PARTS ARE CONSIDERED TO BE WHEN 25% OF METAL THICKNESS HAS WORN AWAY, SEE REPLACE THE FEEDER END PLATES.

F. SUPPLIES AND TOOLS FOR SEAL CHANGE:
- SET OF SEALS, PART NO. 35A02011
- SPARE 3/8"-16 x 1" LENGTH GRADE FIVE BOLTS
- THREAD LOCKTITE
- SPRAY SILICON
- RATCHET AND 8" EXTENSION
- 9/16" SOCKET AND WRENCH
- MEDIUM STANDARD SCREWDRIVER
- MISCELLANEOUS WRENCHES FOR GUARD REMOVAL

1. 

REMOVE THE SIDE ACCESS DOOR A FROM THE FEEDER ASSEMBLY B BY REMOVING THE FOUR BOLTS AND THEN PULL ON THE HANDLES.

2. 


3. 

SPRAY SILICON ON SIDE EDGES OF FEEDER OPENING. MAKE SURE TO INSTALL EACH SEAL IN THE SAME DIRECTION AS REMOVED - ANGLE TOE OF ASSEMBLY FACING IN OPPOSITE DIRECTION OF ROTATION. PLACE NEW SEAL ASSEMBLY F AS SHOWN.
4. Bend right side of rubber toward angle toe and shove seal to right, bend left side of rubber toward angle toe as shown by hand.

5. Lift right side of seal assembly up as shown.

6. Rotate front face of seal assembly up as shown.

7. Slide seal assembly into feeder housing aligning center hole in the angle toe of the seal assembly with the alignment pin.

8. Once the seal assembly has been inserted all the way to the rotor, add locktite to the threads of the attach bolts G. Insert attach bolts with lock washers in end holes and tighten.

9. Remove alignment pin and insert remaining bolts, apply thread locktite and use lock washers. Repeat steps two through nine to replace all seals. Inspect that felt strips (see arrows) will seal the door.

10. Once all seals are replaced, insert door against top stop as shown. Shove bottom of door down to shelf and then push door straight in to align bolt holes. Bolt door securely in place and insert alignment pin into top handle of door for future seal changes, discard old seals.
REPLACE THE VOLUMATIC III FEEDER ENDPLATES AS FollowS:

THE END PLATES SHOULD BE REPLACED WHEN EVIDENCE OF DAMAGE IS SEEN BY VISUAL INSPECTION WHILE CHANGING FEEDER SEALS OR PROBLEMS ARE EXPERIENCED WITH LOSE OF AIR PRESSURE AND BLOW-BY OCCURS. 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. THE FELT WASHER THAT SEALS THE BEARING FROM THE AIR STREAM COULD ALSO CONTRIBUTE TO BLOW-BY AND SHOULD BE REPLACED AS REQUIRED.


[Rough diagram of feeder assembly with labels: FEEDER BARREL WELD ASSEMBLY, 1/4" ROLL PIN HOLE, 2 PER SIDE, 3/4" BEGINNING TYPICAL WEAR AREA ON FEEDER BARREL EDGES, CENTERING TOOL, FELT WASHER, END PLATE, BEARING.]

NOTE: STANDARD FEEDER ASSEMBLY SHOWN, FUNCTION THE SAME FOR SIDE ACCESS FEEDER.
REFER TO THE DRAWING AND FOLLOWING INSTRUCTIONS ON REPLACEMENT OF THE FEEDER END PLATES AND/OR FEEDER BARREL WELD ASSEMBLY.

1. REMOVE THE FEEDER DRIVE COMPONENTS.
2. LOOSEN SET SCREWS IN BEARING COLLARS, REMOVE WORN END PLATE, AND REMOVE BEARING HOUSING AND FELT WASHER FROM WORN END PLATE.
3. PULL ROTOR ASSEMBLY OUT OF BARREL WELD ASSEMBLY.
4. INSERT BOSS ON CENTERING TOOL INTO NEW END PLATE CLEARANCE HOLE, PLACE CENTERING TOOL WITH END PLATE INTO FEEDER BARREL, ADJUST CENTERING TOOL IN TO A FIRM FIT WITH BARREL I. D. (KEEP CENTERING TOOL PARALLEL), ALIGN BOLT HOLES AND TOP SURFACE LEVEL, CLAMP INTO POSITION AND DRILL 1/4" HOLE INTO END PLATE FROM EXISTING HOLE IN THE YOKE OF THE FEEDER BARREL WELD ASSEMBLY (NEW HOLES MAY BE LOCATED, DO NOT LOCATE TO FAR FROM PREVIOUSLY DRILLED HOLES).
5. REMOVE CENTERING TOOL, PLACE END PLATE OVER CENTERING TOOL, ADD FELT WASHER AND BEARING HOUSING AND TIGHTEN BEARING USING WASHER AND NYLOCK NUTS.
6. REMOVE CENTERING TOOL FROM END PLATE.
7. INSTALL ROTOR AND NEW RUBBER FEEDER SEALS FOLLOWING INSTRUCTIONS OUTLINED FOR THEIR ASSEMBLY.
8. BOLT THE END PLATE IN POSITION, A STANDARD ROTOR ASSEMBLY WILL HAVE TO BE ROTATED TO CENTER PROPERLY WHILE BOLTING THE END PLATE IN POSITION.

TO REPLACE THE FEEDER ASSEMBLY COMPLETE:

1. REMOVE THE FEEDER CHAIN DRIVE COMPONENTS INCLUDING THE CHAIN IDLER ASSEMBLY.
2. REMOVE BOLTS THAT ATTACH THE FEEDER TO THE SHREDDER HOUSING AND MACHINE FRAME, SLIDE SPACERS OUT FROM UNDER THE FEEDER.
3. DISCONNECT THE AIR STREAM CONNECTION HOSE.
4. REMOVE THE DRIVE BELTS TO THE SHREDDER HAMMER SHAFT AND REMOVE THE SHREDDER BELT IDLER ASSEMBLY.
5. SLIDE FEEDER OUT FROM MACHINE FRAME, HAMMER SHAFT WILL HAVE TO BE ROTATED TO CLEAR HAMMERS WHEN PULLING FROM MACHINE FRAME.

THE FOLLOWING LABEL IS DISPLAYED ON THE FEEDER OF NEW DELIVERED MACHINES AS A REMINDER TO CHANGE SEALS, THE HOUR METER IN THE TACHOMETER RECORDS MECHANISM RUN TIME SO THAT SEALS CAN BE CHANGED ON A TIMELY SCHEDULE.

CHANGE FEEDER SEALS EACH 250 HOURS OF OPERATION. FAILURE TO DO SO WILL VOID FEEDER WARRANTY. RECORD SEAL CHANGES IN MANUAL.
BLOWER RELIEF VALVE

ONCE WEEKLY, PLUG FEEDER OUTLET OR END OF MATERIAL HOSE WITH BLOWER ONLY RUNNING. THE SPRING LOADED RELIEF VALVE 34 SHOULD OPEN. CYCLE VALVE SEVERAL TIMES BY PLUGGING AND UNPLUGGING FEEDER OUTLET OR HOSE TO CLEAR THE VALVE OF ANY BUILD UP OF DIRT OR MATERIAL. BE SURE THE AIR BLEED CONTROL VALVE 35 IS FULLY CLOSED. NOTE PRESSURE READING ON GAUGE 36 AT THE MOMENT THE SPRING LOADED VALVE RELIEVES. THE INDICATION SHOULD BE 6 PSIG. THE PRESSURE READING WILL DROP THE MOMENT THE SPRING LOADED VALVE POPS EVEN THOUGH THE BLOWER CONTINUES TO RUN BECAUSE THIS VALVE HAS BEEN DESIGNED TO OPEN AT A SET VALVE PRESSURE AND DUMP FULL BLOWER AIR CAPACITY. ANY SIGNIFICANT DIFFERENCE (OVER ½ PSIG) IN THE RELIEF VALVE POP OFF PRESSURE SHOULD BE REPORTED TO UNISUL AT ONCE. NEVER ATTEMPT TO READJUST THE SPRING LOADED RELIEF VALVE WITHOUT CONSULTING THE FACTORY.

**CAUTION:** DO NOT GREASE OR OIL SINCE THE RELIEF VALVE WILL NOT FUNCTION OTHER THAN COMPLETELY DRY.

BLOWER

CHECK THE OIL LEVEL WEEKLY IN THE BLOWER. FOLLOW MANUFACTURER’S OIL CHANGE SCHEDULE AS SPECIFIED IN THE ENCLOSED BLOWER MANUAL PROVIDED IN THE MANUFACTURER’S LITERATURE SECTION. UNISUL FILLS THE BLOWER WITH 15W-40 OIL.

RIGHT ANGLE GEARBOX

CHECK THE OIL LEVEL WEEKLY IN THE GEARBOX. THE GEARBOX IS FILLED WITH MOMAR’S SEVERE SERVICE GEAR OIL 80W-140 PARA. THE PROPER OIL LEVEL IS ESTABLISHED AND MAINTAINED AT THE OIL LEVEL PLUG HALFWAY UP THE REAR OF THE HOUSING. AFTER 100 HOURS OF OPERATION, DRAIN WHILE WARM, THOROUGHLY FLUSH HOUSING WITH LIGHT FLUSHING OIL AND REFILL WITH FRESH LUBRICANT. THEREAFTER, CHANGE AND FLUSH EVERY TWO YEARS OR 4000 HOURS MACHINE TIME.
TRANSMISSION

CHECK THE OIL LEVEL WEEKLY IN THE TRANSMISSION. THE TRANSMISSION IS FILLED WITH MOBIL 626 GEAR OIL, THE PROPER OIL LEVEL IS MARKED AT THE FRONT OF THE TRANSMISSION HOUSING. AFTER 100 HOURS OF OPERATION, DRAIN WHILE WARM. THOROUGHLY FLUSH HOUSING WITH LIGHT FLUSHING OIL AND REFILL WITH FRESH LUBRICANT. THEREAFTER, CHANGE AND FLUSH EVERY SIX MONTHS OR 1000 HOURS MACHINE TIME.

ROLLER CHAIN IDLER ASSEMBLY

SPRAY A LIGHT MISTING OIL ON ALL MECHANISMS THAT MAKE UP THESE ASSEMBLIES. FOR ANY REASSEMBLY THAT MAY OCCUR, MAKE SURE THAT THE IDLER ARM SWIVELS FREELY WITHOUT WOBBLE AND THAT THE SPRING IS COMPRESSED TO A 1" LENGTH (SPRING IS 2½" IN LENGTH NON COMPRESSED) BETWEEN THE TWO CONTROL WASHERS.

FLANGED BEARINGS

BEARINGS SHOULD BE LUBRICATED EVERY 1000 HOURS OF OPERATION IF EQUIPPED WITH A LUBE FITTING. BEARINGS WITHOUT FITTINGS ARE CONSIDERED TO BE LUBRICATED FOR LIFE. DO NOT OVER LUBRICATE, ONE STROKE FROM A HAND OPERATED GREASE GUN IS SUFFICIENT. USE GLUFLEX 'A' MULTIPURPOSE GREASE OR EQUIVALENT NLGI GRADE NO. 1 OR 2.

ROLLER CHAIN

DO NOT LUBRICATE ROLLER CHAIN. CHAIN HAS BEEN FACTORY TREATED. EXCESSIVE LUBRICATION WILL CAUSE CHAIN TO COLLECT MATERIAL AND ACTUALLY WEAR FASTER.

BELTS

DO NOT USE BELT DRESSING. BELT DRESSING WILL COLLECT MATERIAL AND CAUSE 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.

SHREDDER BELT IDLER

ONCE WEEKLY, GREASE SHREDDER BELT FLAT FACE IDLER 37. THIS IS A NEEDLE BEARING ASSEMBLY WITH NO SEAL. WIPE OFF EXCESS GREASE TO KEEP OFF BELTS. ALSO, AVOID OVER TENSIONING BELTS, YOU WILL PRELOAD HAMMER SHAFT CAUSING PREMATURE BEARING FAILURE, AND/OR CAUSE SHAFT BREAKAGE.

ELECTRIC MOTOR

PLEASE REFER TO THE MANUFACTURERS LITERATURE INCLUDED IN THIS MANUAL, HAVE SERVICED BY QUALIFIED SERVICE SHOP.
VII. TROUBLESHOOTING

1. MACHINE WILL NOT OPERATE.
   A. CHECK POWER CABLE CONNECTIONS.
   B. FUSE BLOWN, CIRCUIT BREAKER TRIPPED AT POWER SOURCE.
   C. FUSE BLOWN/SERVICE DISCONNECT IN PANEL TRIPPED.
   D. DISCONNECT SWITCH IN OFF POSITION.

2. BLOWER MOTOR WILL NOT OPERATE.
   A. FUSE BLOWN/SERVICE DISCONNECT IN PANEL TRIPPED.
   B. BLOWER MOTOR FUSE BLOWN.
   C. MOTOR CONTROLLER OVERLOAD TRIPPED.
   D. MOTOR THERMAL OVERLOAD TRIPPED (IF SO EQUIPPED).
   E. SELECTOR SWITCH IN REMOTE - REMOTE CORD NOT PLUGGED IN.
   F. REMOTE CONTROL FUSE BLOWN.
   G. REMOTE CONTROL SWITCH OR CORD DEFECTIVE - TRY SELECTOR SWITCH IN MACHINE.

3. DRIVE MOTOR WILL NOT OPERATE.
   A. DRIVE MOTOR FUSE BLOWN.
   B. MOTOR CONTROLLER OVERLOAD TRIPPED.
   C. MOTOR THERMAL OVERLOAD TRIPPED (IF SO EQUIPPED).
   D. CHECK SELECTOR SWITCH SETTING.
   E. REMOTE CONTROL FUSE BLOWN.
   F. REMOTE CONTROL SWITCH OR CORD DEFECTIVE - TRY SELECTOR SWITCH IN MACHINE.
   G. EMERGENCY BUTTON PUSHED IN (OFF).

4. INSUFFICIENT AIR.
   A. CHECK BLOWER ‘V’ BELTS, ADJUST AS REQUIRED.
   B. CHECK INLET AIR SCREEN.
   C. AIR CONTROL BY PASS VALVE FULLY OPEN.
   D. CHECK IF RELIEF VALVE STUCK OPEN.
   E. FIBER HOSE PLUGGED.
   F. CHECK AIR STREAM HOSE CONNECTIONS.
   G. CHECK ONE WAY AIR CHECK VALVE.
5. NO MATERIAL FLOW.
   A. CHECK SELECTOR SWITCH SETTING.
   B. REMOTE CONTROL FUSE BLOWN.
   C. REMOTE CONTROL SWITCH OR CORD DEFECTIVE - TRY SELECTOR SWITCH IN MACHINE.
   D. EMERGENCY BUTTON PUSHED IN.
   E. CHECK GEARBOX BELTS, ADJUST OR REPLACE AS REQUIRED.
   F. CHECK SHEAR KEY 38, REPLACE AS REQUIRED.
   G. TRANSMISSION NOT IN GEAR.
   H. SLIDE GATE CLOSED.
   I. OBJECT Restricting FLOW IN SHREDDER OR HOPPER AREA.
   J. FIBER HOSE PLUGGED.

6. TORQUE LIMITER SLIPS OR WILL NOT FUNCTION.
   A. EXAMINE METAL FACES FOR OIL OR GREASE. TORQUE LIMITER WILL SLIP.
   B. EXAMINE METAL FACES FOR ROUGH SPOTS OR RUST. TORQUE LIMITER WILL NOT SLIP
      UNDER EXCESSIVE LOADS. TORQUE SHOULD BE 145 FT/ LBS.
   C. TO RESET TORQUE LIMITER, LOOSEN THE THREE CAP SCREWS 39 UNTIL THE POINTS ARE
      Recessed INTO ADJUSTING COLLAR 40. TURN ADJUSTING COLLAR CLOCKWISE UNTIL
      HAND TIGHT AND THEN AN ADDITIONAL ¼ TURN, TIGHTEN CAP SCREWS UNTIL HEADS
      BOTTOM.
### VIII. PARTS LIST

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<td>- FEEDER SEAL, P. N. 35A02011</td>
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<td>- SEAL ATTACH BOLT, 3/8&quot;-16 x 1&quot; LENGTH GRADE 6 WITH LOCK WASHER</td>
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<td>- SLIDE GATE FELT SEAL, P. N. 35P03005</td>
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<td>SHREDDER HOUSING STATOR BAR, P. N. 35A03004</td>
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<td>LOCK SCREW, SLIDE GATE ADJUSTMENT ROD</td>
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* Denotes upper assembly of major machine components, options, and/or accessories. All parts that make up these assemblies follow with a dash (-) mark designation.
WILL REQUIRE AN ADDITIONAL FELT WASHER.
ALSO, OPTINAL STAINLESS STEEL PLATES
HAVE DIMENSIONAL DIFFERENCES THAT WILL
REQUIRE AN ADDITIONAL FELT WASHER.
HOUSING 4 A DIFFERENT MANUFACTURER MAY
BE NEEDED AND THE END PLATE A BEARING
MINIMUM BETWEEN THE INNER RACE OF THE
FELT WASHER WILL COMPRESS A 1/236,
FOR ANY BEARING REPLACEMENT, MAKE SURE
BEARING

FEEDER SEAL

FEEDER WASHER, 7/8 PER ASSEMBLY
WITH LOCK WASHER, 7/8 PER ASSEMBLY
SEAL ATTACHMENT BOLT, 1/4-28 X 3/8 Lenth,
PACKING PLATE

REEDER BARREL WELD ASSEMBLY
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<td>MOUNTING COLLAR, P. N. 35P06008</td>
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26. RELIEF VALVE, 36A04069  
27. CHECK VALVE  
28. BLOWER INLET CONNECTION, P. N. 19P04011  
29. BLOWER OUTLET CONNECTION, P. N. 10P10007  
30. AIR STREAM TUBE, P. N. 35P05002  
31. AIR GAUGE  
32. BALL VALVE, AIR CONTROL  
33. AIR STREAM NIPPLE, P. N. 10P10012  
34. MOUNT BRACKET, AIR STREAM NIPPLE, P. N. 10P10013  
35. BLOWER INLET SCREEN, P. N. 10P10008  
36. HOSE, BLOWER INLET SCREEN CONNECTION

37. ROLLER CHAIN, SHEAR SPROCKET/AUGER DRIVE #50  
38. ROLLER CHAIN, FEEDER DRIVE #50  
39. ROLLER CHAIN, CIRCULATOR DRIVE #40  
40. ROLLER CHAIN, JOGGER DRIVE #40  
41. SPROCKET, AUGER DRIVE - 5015 x 1.000 bore  
42. SHEAR SPROCKET, AUGER DRIVEN, P. N. 10P16006  
43. SHEAR HUB, P. N. 10P16003 (mate to shear sprocket)  
44. SHEAR KEY, 1/4" X 1/4" KEY STOCK X 2" LENGTH  
45. 1/4"-20 x 3/4" LENGTH GRADE 5 BOLT WITH WASHER  
46. SPROCKET, FEEDER DRIVE - 5019 x 1.187 bore  
47. SPROCKET, FEEDER DRIVEN - 5022 x 1.250 bore  
48. SPROCKET, CIRCULATOR DRIVE - 4014 x 1.187 bore  
49. SPROCKET, CIRCULATOR DRIVEN - 4072 x 1.187 bore  
50. SPROCKET, JOGGER DRIVE - 4036 x 1.187 bore  
51. SPROCKET, JOGGER DRIVEN - 4060 x 2.500 bore  
52. TORQUE LIMITER, JOGGER DRIVEN SPROCKET (1.187 bore)
53. IDLER PULLEY ASSEMBLY, FEEDER DRIVE ROLLER CHAIN, P. N. 10P16017 1 *
   - MOUNTING BRACKET, P. N. 10P16014 1
   - IDLER ARM, P. N. 10P16018 1
   - IDLER PULLEY 1
   - SPRING ARM, P. N. 10P16021 1
   - 2 1/2" LENGTH COMPRESSION SPRING 1
54. IDLER PULLEY ASSEMBLY, AUGER DRIVE ROLLER CHAIN, P. N. 35A06007 1 *
   - MOUNTING BRACKET, P. N. 35A06012 1
   - IDLER ARM, P. N. 10P16018 1
   - IDLER PULLEY 1
   - SPRING ARM, P. N. 35A06013 1
   - 2 1/2" LENGTH COMPRESSION SPRING 1

55. BEARINGS, HOPPER COMPONENTS 6
56. BEARING TAKE UP SADDLE ASSEMBLY, P. N. 10P16002 1
57. JOGGER, HOPPER COMPONENT, P. N. 10P11009 1
58. CIRCULATOR, HOPPER COMPONENT, P. N. 10P11010 1
59. AUGER, HOPPER COMPONENT, P. N. 10P11012 1
60. HOPPER COMPONENT ATTACH BOLT, 3/8"-16 N.C. x 3" LENGTH 1
    GRADE 5 WITH NYLOCK NUTS 12
61. 10" STUB SHAFT, P. N. 10P11023-10 2
62. 8" STUB SHAFT, P. N. 10P11023-08 3
63. 7" STUB SHAFT, P. N. 10P11023-07 1
64. LOADING DROP GATE ASSEMBLY, P. N. 10P16007-01 1 *
   - DROP GATE, P. N. 10P16007-02 1
   - SUPPORT ROD, P. N. 10P16013 2
   - SUPPORT ROD PLATE, P. N. 10P16009 2
   - HINGE 4
65. GUARD, LEFT SWING GATE, P. N. 10P12005-03
66. GUARD, RIGHT SWING GATE WITH T-HANDLE LATCH, P. N. 10P12005-04
67. END GUARD, LEFT SIDE, P. N. 10P12008-02
68. END GUARD, UPPER RIGHT SIDE, P. N. 35A04001
69. END GUARD, LOWER RIGHT SIDE, P. N. 35A04002
70. TOP GUARD, OPTIONAL APPLICATIONS, P. N. 10P12009-01
71. REAR GUARD, P. N. 10P12010-01
72. END GUARD, LOWER LEFT SIDE, P. N. 35A04003
73. BLOWER MOTOR 1
74. MECHANISM MOTOR 1
75. SWING GATE SAFETY SWITCH 1
76. EMERGENCY STOP PUSH/PULL BUTTON 1
77. ELECTRIC PANEL ENCLOSURE ASSEMBLY, P. N. 36A06001 1*
   - DOOR, P. N. 36A06007 1
   - INSERT PANEL, P. N. 22P09007 1
   - DISCONNECT BRACE, P. N. 36P06009 1
   - STRAIN RELIEF 1
   - GROUND LUG 1
78. START PUSH BUTTON 1
79. 3 POSITION SELECTOR SWITCH 1
80. REMOTE RECEPTACLE 1
81. DISCONNECT SWITCH ASSEMBLY 1*
   - FUSES 3
   - FUSE CLIP 3
82. BLOWER MOTOR STARTER AND OVERLOAD 1*
   - AUXILIARY CONTACT 2
83. MECHANISM MOTOR STARTER AND OVERLOAD 1
84. FUSES AND CLIPS, BLOWER MOTOR STARTER 3
85. FUSES AND CLIPS, MECHANISM MOTOR STARTER 3
86. LOW VOLTAGE CONTROL TRANSFORMER ASSEMBLY 1*
   - FUSES 3
   - CLIPS 3
87. ELAPSE TIMER 1
88. MOUNT, ELAPSE TIMER, P. N. 22P09012 1
89. L3 LOCKOUT RELAY 1
90. REMOTE LOGIC RELAY 3
91. 115V CIRCUIT DISCONNECT AUXILIARY CONTACT 1
92. 115V CIRCUIT GROUND FAULT INTERUPTER 1
93. 115V CIRCUIT RECEPTACLE (CONNECTOR BODY SUPPLIED) 1
94. 115V CIRCUIT SUPPLY CORD 1

PAGE 38
PREVENTIVE MAINTENANCE RECORD

DATE

JOB DESCRIPTION

PERFORMED BY
THE INFORMATION FOLLOWING THIS PAGE SHOULD BE REFERED TO FOR ANY OPTIONAL EQUIPMENT INSTALLED ON THE ELECTRIC VOLUMATIC III MACHINE, MANUFACTURERS LITERATURE FOR COMPONENTS INSTALLED ON THE MACHINE ARE ALSO INCLUDED.

OPTIONAL EQUIPMENT THAT MAY BE INSTALLED BUT NOT LIMITED TO:

TOP GUARD
BLOWER INTAKE SILENCER
RADIO REMOTE CONTROL
DUST CONTROL WATER PUMP
VARIABLE SPEED MOTORS AND CONTROLLERS

MANUFACTURERS LITERATURE INCLUDED IN MANUAL:

ELECTRIC MOTOR
BLOWER
TRANSMISSION
RIGHT ANGLE GEARBOX
CERTAINTEED MACHINE WORKS BLOWING EQUIPMENT
LIMITED TWO-YEAR WARRANTY

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, including but not limited to the engine, blower, gearbox, and transmission, if furnished by the manufacturer of the component, are on file at the Company's main office and copies will be furnished with the blowing 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 results of any application or use of the blowing equipment.

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, shafts, seals, chains, belts, sprockets, pulleys, bearings, cables, and batteries.

The Company’s obligation under this warranty is limited to repairing or replacing (at its option) 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 equipment must be returned to the Company for repair, 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 equipment for repair.

THIS LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER GUARANTEES AND/OR WARRANTIES, ORAL OR WRITTEN, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. 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.

This warranty is not transferable.

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

CertainTeed
SAINT-GOBAIN
Machine Works

101 Hatfield Rd, Winter Haven, FL 33880

800-237-7841

www.certainteedmachineworks.com

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