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*For your safety, please read and understand this manual thoroughly before installation, operation and maintenance. This manual should be readily available for any training, repair or ordering of parts.*

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**44SP  
44SPG  
Spotting Boards**

**Instruction Handbook**

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**Version 2.0**

**Document Number: 30793**

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# 1. Introduction

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Thank you for choosing Forenta equipment. We hope you have many years of safe and satisfied use of this machine.

This manual is part of the machine and should always be readily available for safety information, training and maintenance. Reading and understanding this manual will help avoid personal injury or damage to the machine. Additional copies of this manual are available from your distributor or the Forenta Parts & Service Department.

"Left-hand" and "right-hand" refer to the direction when the operator is in his or her normal operating position.

A vacuum is available for this machine that may be useful and can be added after installation. Contact your local distributor or the Forenta Parts & Service Department for more information.

Shipping address:

Forenta, L.P.

185 Cold Creek Drive

Morristown, Tennessee 37814

Mailing address:

Forenta, L.P.

P.O. Box 607

Morristown, TN 37815-0607

Telephone: (423)586-5370

Facsimile: (423)586-3470

Website: [www.ForentaUSA.com](http://www.ForentaUSA.com)

E-mail: [info@ForentaUSA.com](mailto:info@ForentaUSA.com)

Record the model number, serial number and installation date of this machine in the space below to make ordering of parts easier:

---

***Model number:***

***Serial number:***

***Installation date:***

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All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

Intertek Listing Constructional Data Report: 103602079ATL-001

## 2. Warranty

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Forenta warrants **MAJOR COMPONENTS** (heads, bucks, and frames only) to be free from defects in materials or workmanship which may cause failure under normal usage and intended service for a period of **five years** from the date of shipment from the factory. Damages resulting from neglected maintenance, abuse (such as any damage caused by pressing on metal buttons) or improper adjustments will not be considered defects. This does not include heating elements used in electrically-heated heads and bucks. (See **Electrical Items** below.)

Forenta further warrants all other **fabricated components** and **outside supplier purchased components (excluding electrical items, see below)**, used in the original manufacture, to be free from defects in materials or workmanship, which may cause failure under normal usage and intended service, for a period of **two years** from date of shipment from the factory (ordinary wear, neglect, abuse, accident, or deterioration due to corrosion, or breakdown of electrical parts due to high or low voltages, not to be considered defects), subject to the following conditions:

Forenta will not accept nor assume any liability resulting in personal injury or property or equipment damages caused by lack of maintenance, lack of attention to or improper operation of any piece of equipment. Failure to adhere to maintenance, service and operational procedures as recommended in the Instruction Manual for the equipment will void any and all warranties.

Forenta does not warranty service labor in the replacement of parts covered under this warranty. In certain applications, Forenta, at its discretion, recognizing that a defect is present and at an agreed to cost prior to service labor being performed, will reimburse a distributor or local service company to repair the defect or replace the defective part.

**Expendables** (such as padding, covers, lubricants, and discs, diaphragms and O-rings of valves and cylinders) and decorative or protective trim and paints are not guaranteed.

**Electrical items**, timers, motors, vacuums and all other electrical components from outside suppliers used in the original manufacture of Forenta Equipment carry the warranty of their manufacturer or 120 days from date of shipment from Forenta. These parts must be returned to Forenta under our normal return authorization policy or serviced by a repair shop authorized by the motor manufacturer or Forenta.

**Forenta's responsibility** is limited to the furnishing of a replacement part FOB point of origin. All replacement parts will be charged for, and credit under this warranty will be issued only if:

- a. The returned part proves upon examination to have actually been defective in workmanship or materials, and
- b. The serial number of the machine is supplied along with the returned part, and
- c. The returned part has been sent with promptness, prepaid to:

Forenta, L.P.  
185 Cold Creek Drive  
Morristown, TN 37814

and received by Forenta within 30 days from shipment of the replacement part.

**This warranty does not include freight or handling charges** incurred in repairing or replacing defective parts or equipment. Forenta is not responsible for garments damaged on this equipment or for any consequential damages, loss or expenses arising in connection with the use of, or the inability to use its equipment for any purposes whatever or for losses sustained by this equipment being out of operation for any reason. Forenta does not warrant any specific production rates for any of its equipment.

This warranty does not include parts or equipment damaged by **accident, abuses, acts of God**, acts of third person, operation of equipment under unusual conditions or for which it was not represented, or for causes beyond the company's control.

Since the age of a machine can only be determined by the serial number, warranty will be voided in event of mutilation or removal of **serial plate** from machine. Resale or movement of equipment from the original point of installation automatically terminates this warranty.

This warranty **is in lieu of all other warranties**, expressed or implied, and is Forenta's sole warranty. With respect to the equipment, Forenta makes no other warranty of any kind whatever expressed or implied, and all implied warranties of merchantability and fitness for a particular purpose, which exceed the above obligation, are hereby disclaimed by Forenta and excluded. Forenta does not authorize any person or corporation to increase the warranty as herein specified or to assume for it any other liability.

### 3. Specifications

Steam connection:

- 1/2 NPT for supply and condensate
- 75-85 psi (0.52-0.59 MPa) (517-586kPa) (5.2-5.9 bar)
- Steam consumption at 80 psi: 1 boiler horsepower (34.5 lb./hr.) (15.6 kg/hr.)

Compressed air connection:

- 1/2 NPT standard, 3/8 NPT for optional filter/regulator
- Recommended air pressure: 80 psi (0.55 MPa) (552 kPa) (5.5 bar)
- Free air/cycle at 80 psi: 3 cubic feet (85 liters)

Vacuum connection:

- 1-1/4 NPT
- 20-30 inches of water (0.005-0.0075 MPa) (5-7.5 kPa) (50-75 millibar)
- 75 cubic feet/minute (127 cubic meters/hour)

Electrical connection with optional 115-volt single-phase vacuum:

- 110-120 VAC single-phase, 60 Hz, 8.1 amps
- Electrical supply must be connected to a 15- or 20-amp maximum circuit breaker

Electrical connection with optional 230-volt single-phase vacuum:

- 220-240 VAC single-phase, 60 Hz, 4.1 amps
- Electrical supply must be connected to a 15- or 20-amp maximum circuit breaker

Electrical connection with optional three-phase vacuum (export only):

- 230 VAC three-phase, 50 Hz, 1.6 amps, .37 kW
- 400 VAC three-phase, 50 Hz, .91 amps, .37 kW
- 460 VAC three-phase, 60 Hz, .8 amps, .37 kW

Approximate machine weight without accessories: uncrated

44SP or 44SPG 244 pounds (111 kg)

Approximate machine weight without accessories: crated

44SP or 44SPG 290 pounds (132 kg)

Accessories:

Vacuum blower, bracket and controls (single-phase) 42 pounds (19 kg)

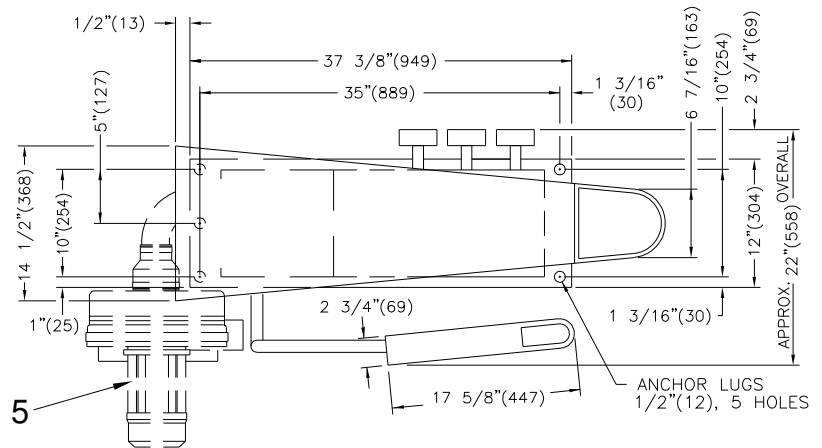
Vacuum blower, bracket and controls (three-phase) (export only) 42 pounds (19 kg)

Compressed air filter/regulator/gauge 5 pounds (2 kg)

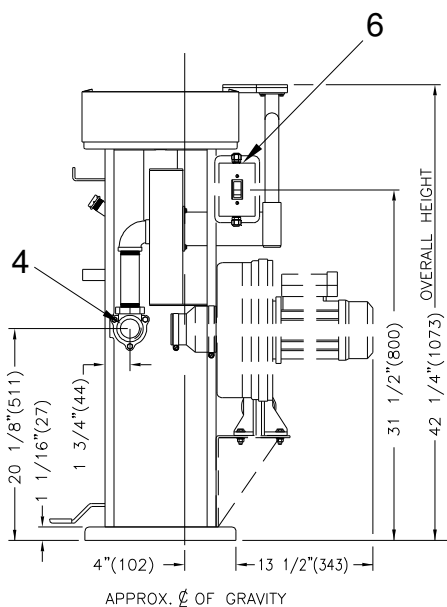
## 4. Dimensions

Number	Description
1	Steam supply inlet connection
2	Steam condensate outlet connection
3	Compressed air supply inlet connection
4	Vacuum connection
5	Optional vacuum motor and blower assembly
6	On/off switch for optional vacuum motor

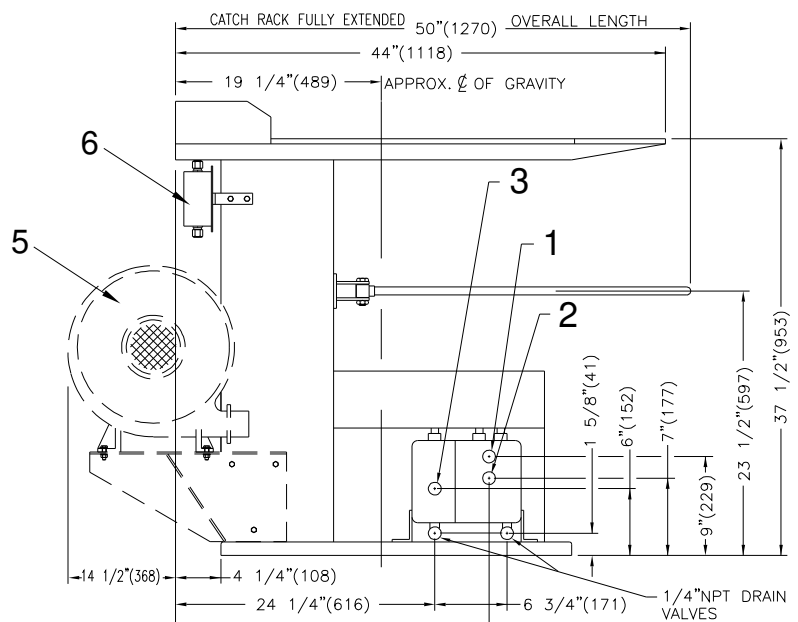
See Section 17.3 for the location of the optional compressed air filter/regulator/gauge, K-744.



TOP VIEW



SIDE VIEW



REAR VIEW

## 5. Safety Summary

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The following general safety notices supplement the specific warnings and cautions appearing elsewhere in this manual. They are recommended precautions that must be understood and applied during installation, operation and service of the equipment. Should situations arise that are not covered in this manual, contact a Forenta service technician.

### 5.1 Qualified Personnel

This manual should be read and understood thoroughly by installation, service or operating personnel. These people should have a thorough understanding of the machine's safety and operational features before beginning installation, service or operation. This will minimize the possibility of injury to personnel or damage to the equipment.

### 5.2 Unqualified Personnel

This machine is not intended for use by any person, including children, with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless he or she has been given supervision or instruction concerning the use of the machine by a person responsible for his or her safety. Children should be supervised to ensure they do not play with the machine.

### 5.3 Lockout Procedure

Electrical, pneumatic and steam supplies should be locked out when performing service or replacing padding on this machine. This is essential to prevent electrocution, crushing or burns. See OSHA 29 CFR Part 1910.147 for more information. Note the machine will still be hot for some time after removing steam.

### 5.4 General Precautions

Burns can occur from touching hot metal parts, hot water or steam.

Never place body parts between the pressing surfaces and mechanisms unless electrical and steam supplies have been disconnected and locked out as described above.

Make sure steam or electrically heated parts have cooled before beginning service or replacing padding.

Do not operate the machine without all safety devices and guards in place and working properly.

Only use Forenta approved replacement parts.

#### **WARNING**

Parts of this machine get hot when it is on. Do not touch the pressing surfaces, steam piping or adjacent structure when operating or servicing the machine.

### 5.5 Electrical Precautions

Before making any electrical connections, disconnect power to the circuits providing power to the machine. Before doing any electrical service, be sure to protect against accidental grounding. If possible, electrical adjustments should be made with one hand and the other hand free and clear of the equipment.



## 5.6 Do Not Repair or Adjust Alone

Under no circumstances should repair or adjustments of energized equipment be attempted alone. The immediate presence of someone capable of rendering aid is required.

## 5.7 Safety Labels

Safety labels are located on the machine and should be observed and understood. If a label is damaged or removed, it should be replaced at once to alert people of hazards.



**This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury



**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury



**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury



**NOTICE** is used to address practices not related to physical injury



This symbol indicates a hot surface that can cause serious burns.



This symbol indicates dangerous pinch points.



This symbol indicates dangerous voltages.

## 6. Installation Instructions

### 6.1 Uncrating and Locating the Press

Uncrate the machine and check for shipping damage. If any is found, notify the transportation company and file a claim. Remove the machine from its shipping base and move it to the installation location. At least 24" (610mm) clearance should be around the machine for maintenance and service access. Remove any tie-downs or shipping retainers.

#### **CAUTION**

Do not push, pull or attach rigging to the worktable or the swinging sleeve board and its pivoting mechanism while moving the machine. Care must be taken to prevent dropping or otherwise damaging the machine.

#### **WARNING**

The machine is top-heavy. Use caution when moving by hand or with power equipment.

### 6.2 Setting and Anchoring

The machine may be anchored to the floor using the four holes located at the base of the machine. The machine should be installed in a level position.

### 6.3 Steam Supply Connection

Connect the steam inlet to a steam source with a minimum pressure of 75 psi and a maximum of 85 psi. The pipe size of the connection is 1/2 NPT. The connection shall include a cutoff valve and union.

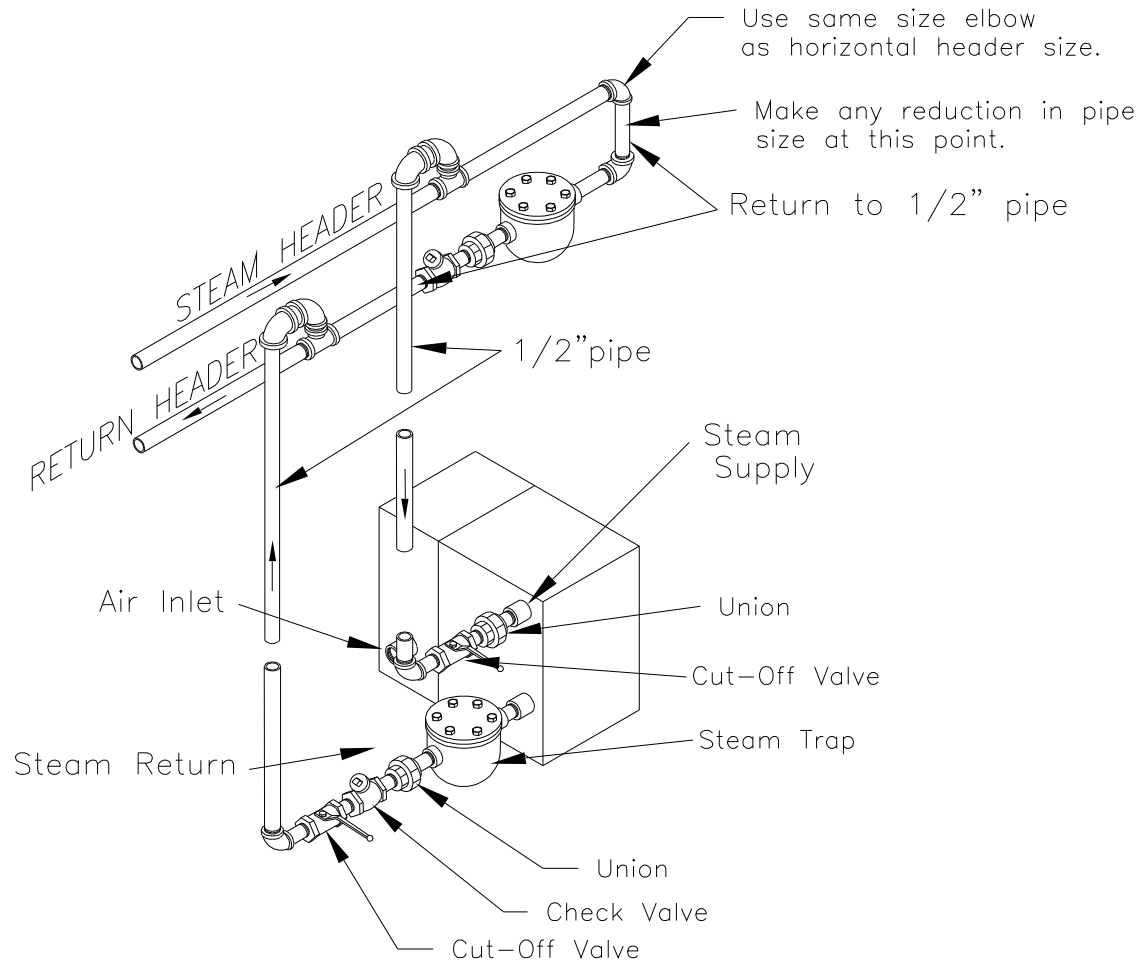
### 6.4 Steam Condensate Return Connection

The steam condensate return connection requires one steam trap for the machine. The steam condensate return connection is also 1/2 NPT. A swing type check valve should be installed after the steam trap and before the return line with a pipe union in between. See the illustration on the next page.

All connections to presses and other feeder lines should come off the top of the steam header. Steam supply lines should never dead end at presses or at the end of manifolds. For optimum efficiency, steam supply lines must have steam traps at the end of the header to remove condensate and provide constant steam circulation. The traps should be checked periodically to assure they are operating correctly.

#### **WARNING**

Precautions must be taken when working with steam systems. The steam should be turned off, drained of steam, hot water and pressure. Allow the pressure vessels, piping, valves and fittings to cool before making any repairs. Steam is very hot and under high pressure. It can cause serious burns and injuries to personnel.



### RECOMMENDED STEAM PIPING

#### **⚠ CAUTION**

All rigid steam pipes within seven feet of the floor or working platform shall be insulated or guarded to prevent burns. See OSHA29 CFR Part 1910.264(4)(iii).

#### **NOTICE**

Failure to follow these instructions may result in less than optimum quality and production as well as unnecessary steam loss.

Steam line piping should be black pipe. The steam system should be free of oil and foreign material. Steam lines should be blown out thoroughly before connecting to the machine. This will help prevent debris from damaging valves and plugging lines.

After connection to the steam system, blow out the machine to further ensure no debris can be transferred to the first garment. See Spotting Gun instructions in the Operating Instruction section of this manual.

#### **NOTICE**

Failure to follow these instructions may result in machine malfunction and will void the machine warranty.

## 6.5 Compressed Air Connection

This machine should be connected to a compressed air system that is free of moisture and foreign material. The supply line should be blown out thoroughly to prevent dirt and debris from damaging valves and plugging lines. The 1/2 NPT connection located at the rear of the machine requires a minimum compressed air supply pressure of 75 psi and maximum of 85 psi.

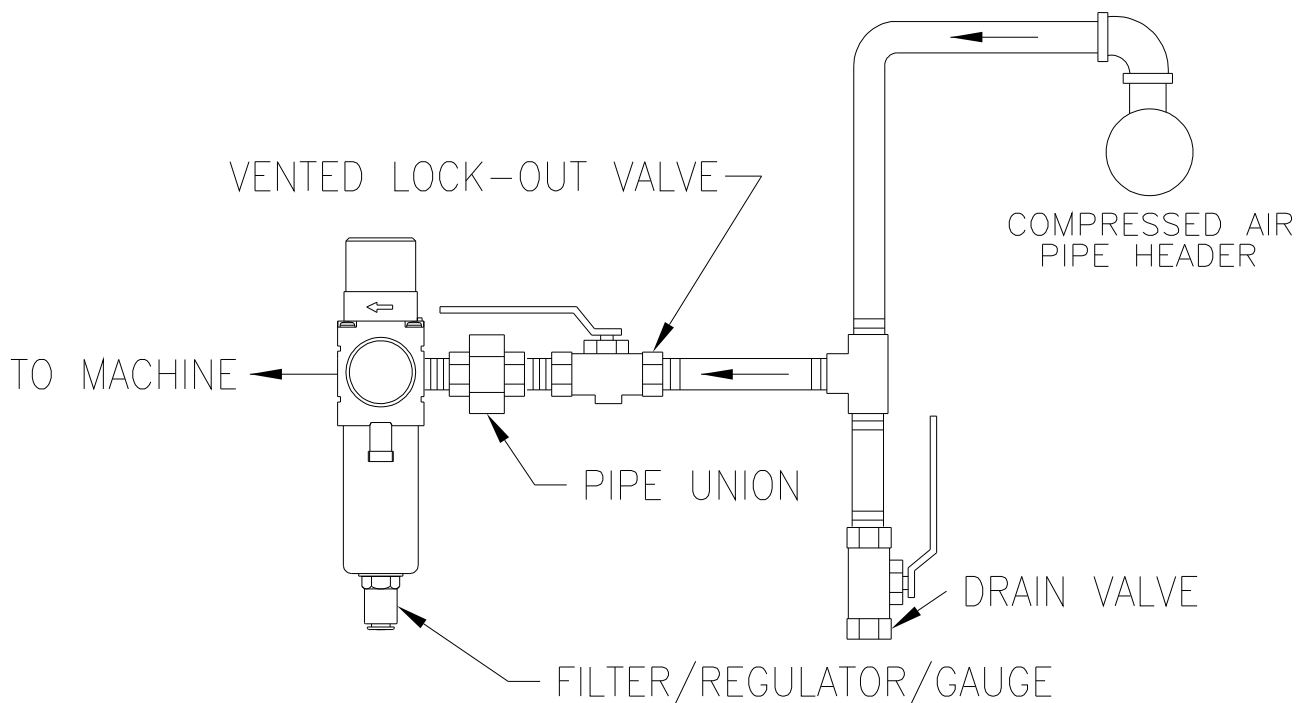
Note: If the machine is equipped with the optional filter/regulator, the connection is 3/8 NPT.

### **NOTICE**

The pipe size connecting the press should be no smaller than 3/8. Using a smaller size may cause the machine to operate slowly or erratically. Piping should be galvanized steel, stainless steel, copper or aluminum.

## 6.6 Compressed Air Moisture Removal

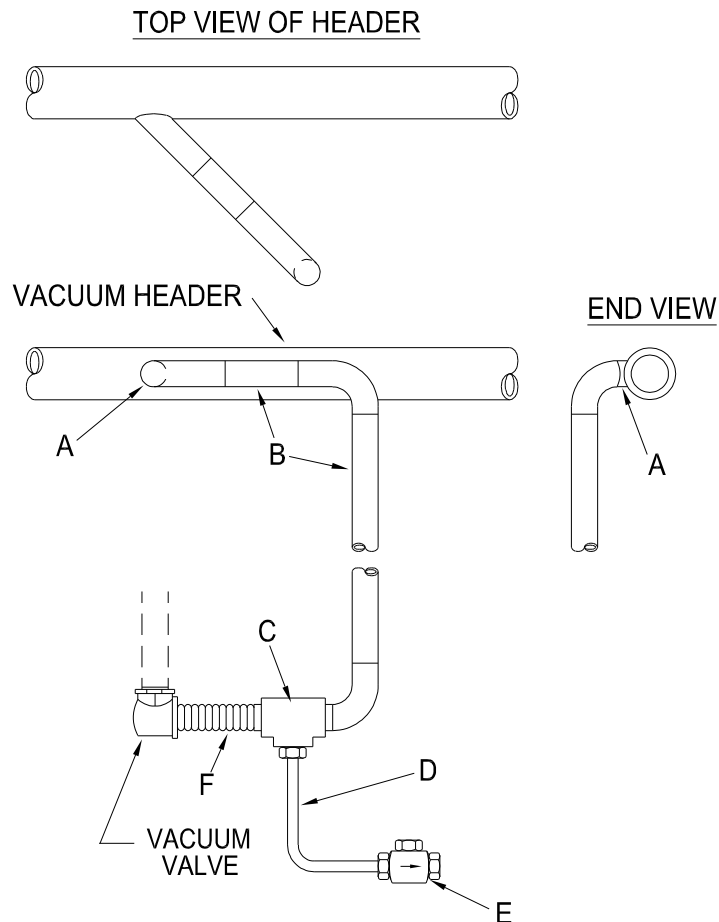
Air compressors should incorporate an aftercooler with a moisture separator to remove moisture from the compressed air. The compressed air pipe header should slope downward moving away from the compressor to permit any remaining condensation to move to an end of line drain valve. Supply connections to the press should come off the top of the compressed air pipe header.



## 6.7 Vacuum Connection for Central Vacuum

The spotting board has a 1-1/4" NPT connection. Refer to Section 4 of this manual for location. The vacuum required is the same as for one press.

- A. Come out of the side of the vacuum header. Two 45° turns are better than one 90° turn.
- B. Use 1-1/4" or larger lines. Do not use small fittings which will restrict airflow.
- C. Insert 1-1/4" tee fitting.
- D. Insert reducer and 1/2" line.
- E. Install swing-type check valve horizontally.
- F. Flexible hose here will isolate unit from vibration.



### **NOTICE**

Moisture collected in the vacuum overnight or whenever the vacuum system is off will drain automatically through the check valve. When the vacuum restarts, the check valve will close automatically.

## 6.8 Electrical Connection for Optional Vacuum

If the spotting board includes the optional single-phase vacuum unit, the power outlet must be adequate to carry the current for the vacuum motor. See Section 3 of this manual, the machine data plate or the blower motor data plate to determine the amperage requirement for the installation voltage. If not sure, contact a Forenta service technician: phone (423)586-5370 or fax (423)586-3470.

Connect power to the vacuum motor after reading all electrical notices and warnings. Make sure the power cord does not get entangled in any moving parts of the machine, touch any steam lines or become a tripping hazard. If the supply cord is damaged, it must be replaced by Forenta, a Forenta agent or similarly qualified person to avoid a hazard.

** CAUTION**

If the supply cord is damaged, it must be replaced by the manufacturer, its agent or similarly qualified individual to avoid a hazard.

**WARNING**

Before making any electrical connections, disconnect power to the circuits providing power to the machine.

** CAUTION**

An electrical lockout device should be used on the electrical supply when servicing the machine.

** CAUTION**

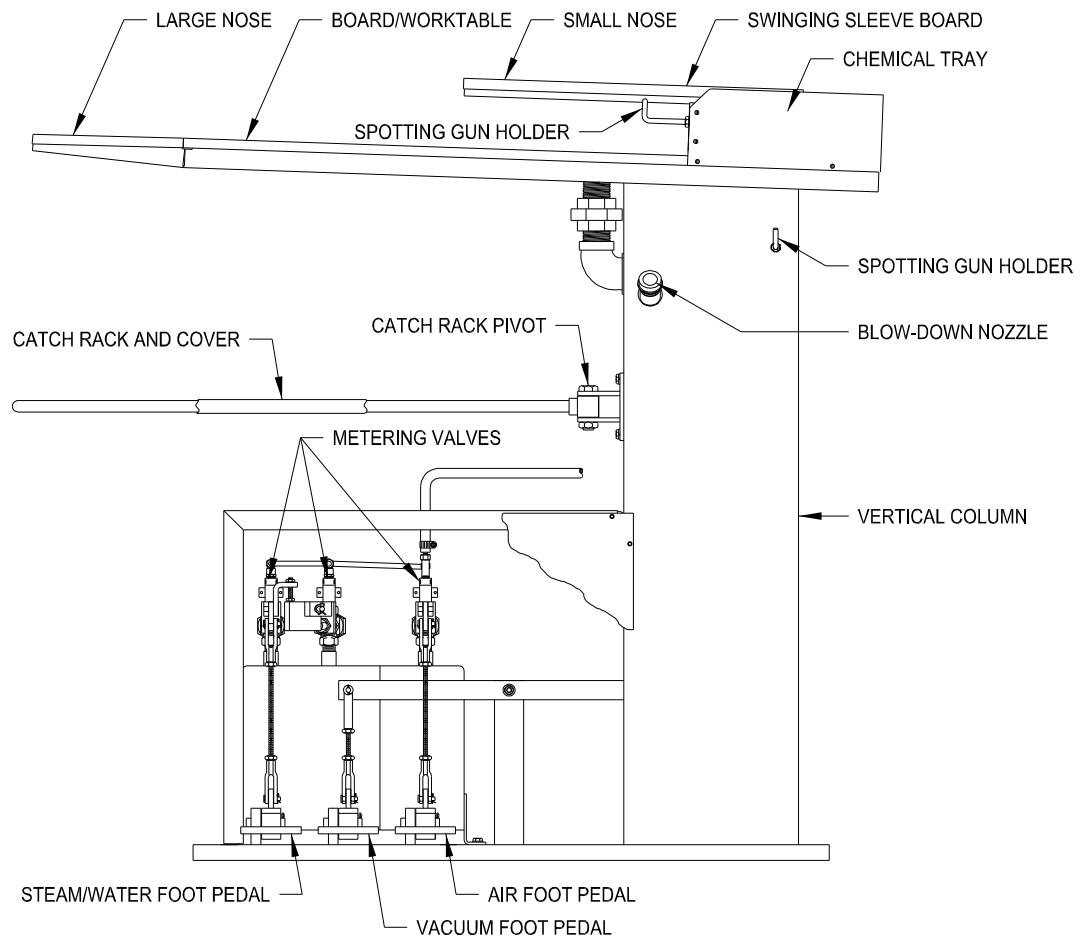
All electrical wiring and connections must be made in compliance with the requirements of the National Electrical Code and/or local codes and ordinances.

**NOTICE**

If at any time you have questions or find something not operating properly, contact a Forenta service technician: phone (423)586-5370 or fax (423)586-3470.

## 7. Operating Controls

This machine is designed to provide a work surface and tools for a trained operator to remove spots and stains from garments. Operators should be thoroughly trained in its safety features and operation as well as the principles and techniques of garment spot removal.



### 7.1 Catch Rack

The catch rack is located under the worktable. It uses a removable fabric cover that can be cleaned or replaced. The rack pivots on a bracket that is attached to the vertical column.

## 7.2 Spotting Noses

The large spotting nose on the left end of the worktable and the small spotting nose on the swinging sleeve board both perform the same function. The large nose is for large garments and the small nose is for items too small to pull over the large spotting nose.

To use the large spotting nose, push the small sleeve board away to its rear position. This provides vacuum to the large spotting nose when the vacuum pedal is depressed and closes vacuum to the sleeve board. Moving the sleeve board to its full forward position, the vacuum is now directed to the small sleeve board when the vacuum pedal is depressed and prevents vacuum flow to the large nose.

NOTE: The vacuum pedal controls the main vacuum valve which is common to both the small and large noses. Neither nose draws vacuum until the pedal opens the main valve.

All the functions that this machine is capable of can be performed on either nose depending upon the position of the swinging sleeve board.

## 7.3 Steam/Water, Vacuum and Air Foot Pedals

The foot pedals are marked for their functions. Depressing the “STEAM/WATER” pedal halfway down, only steam will be discharged from the spotting gun. The volume of the steam is controlled by a metering valve and not the foot pedal. This metering valve is accessible from the rear of the machine. It is on top of the steam tank directly behind the “STEAM/WATER” foot pedal.

### **NOTICE**

Do not open this valve too wide. Excessive steam from the gun can damage garments.

Depressing the “STEAM/WATER” pedal all the way down will provide a mixture of steam and water to be discharged from the spotting gun. The volume of water from the gun is controlled by the center metering valve on top of the steam tank. It is accessible from the rear of the machine.

### **NOTICE**

If this valve is opened too wide, an excess of water will be sprayed on the garment, causing slower drying and possibly hinder spot removal.

The center pedal is the “VACUUM” pedal. Depressing it will provide vacuum to either the large or small nose depending upon the position of the sleeve board. The volume of vacuum is dependent upon how far the pedal is depressed. For more information, see paragraph 7.1 of this manual.

Depressing the “AIR” foot pedal will provide warm, dry air through the spotting gun. The volume is controlled by the metering valve on top of the air tank. This valve is located directly behind the air foot pedal and is accessible from the rear of the machine.

### **NOTICE**

Too much air volume and pressure from the spotting gun can damage garments.



The pedals are arranged so the vacuum pedal can be depressed at the same time as either the “STEAM/WATER” or “AIR” pedals are depressed. When using the “STEAM/WATER” pedal, depressing the “VACUUM” pedal will help remove the moisture from the spotting gun through the garment and prevent excessive wetting. Depressing the “AIR” pedal will after spotting will supply warm, dry air to through the spotting gun for drying the garment. Vacuum used with the drying air will speed the drying process.

## 7.4 Spotting Gun

The spotting gun delivers steam, steam/water or warm, dry air depending on the use of the pedals. Prior to pointing the gun toward the garment, it should be placed into the blow-down nozzle that the gun rests in and the appropriate pedal depressed to blow out excessive moisture. This will prevent over wetting the garment. Use of the blow-down nozzle will deliver the excess moisture to the drainage container stored in the vertical column.

Two positions are provided for storing the gun when not in use. One is on the front side of the vertical column with the nozzle resting in the blow-down nozzle. In this position any condensate leakage will run down into the drainage container. The other position is on top of the worktable in the rack that divides the chemical tray from the worktable.

## 7.5 Spotting Instructions

Quality spotting is an asset to any laundry or dry cleaner. This manual will not endeavor to give instructions in spotting techniques. However, a number of sources publish instructional material for the spotter. One of these is *Spotting Guide*, a book that covers all aspects of spotting. This book is available from *American Drycleaner* magazine. Drycleaning & Laundry Institute also has instructional material on spotting as well as seminars. Your local chemical supplier will also be able to assist with instructional aids.

## 8. Maintenance

This is a recommended preventive maintenance schedule for a safe and extended service life; a maintenance schedule must be established. Experience may modify the frequency of inspections or add additional inspections.

** WARNING**

Use the appropriate lockout/tagout method for making repairs and/or adjustments.

### 8.1 Daily Inspection

1. Check compressed air filter. Repair or replace if not draining properly.

**NOTICE**

Excessive amounts of oil and water draining from the filters could indicate a faulty compressed air supply system. The compressed air system must be properly maintained to prevent voiding the warranty, causing malfunctions and damaging the machine.

2. Check the machine's compressed air pressure gauge to ensure the regulator is set to the recommended pressure as specified on page 3 of this manual.
3. Clean the worktable, large nose and sleeve board.

### 8.2 Weekly Inspection

1. The large spotting nose and small sleeve board top should be removed to remove any accumulated residue underneath. Flushing both noses with cleaning solvent will help reduce buildup.
2. Clean lint, dust and debris from around the machine.
3. Drain the "STEAM/WATER" and "AIR" tanks. This may have to be adjusted for local water, boiler treatment and air compressor conditions. If discolored matter comes out of the spotting gun, more frequent draining may be required.
4. Inspect press steam trap for proper functioning.

**NOTICE**

A properly working steam trap will have a temperature drop of 100° F. (38° C.) from the machine side to the trap outlet side. The pipe on the outlet side should be approximately 200° F. (93° C.). The pipe on the inlet side should be approximately 300°F. (149° C.). A too cool trap can cause the machine to not heat adequately. A trap that is blowing by can cause internal damage to the machine. If neglected long enough, this condition can cause unreparable damage to the machine.

### 8.3 Quarterly Inspection

1. Check pedal pivots and other linkage pivots; oil or grease if needed.
2. Check the sleeve board pivot for smooth movement.
3. Check the control system to ensure the machine is operating correctly including all safety features. If any deficiencies are found, remove the machine from service and make repairs or adjustments immediately.
4. Check the mechanical operation of the machine to ensure it is working smoothly with no erratic actions or sounds. If any deficiencies are found, remove the machine from service and make repairs or adjustments immediately.
5. Check for steam and compressed air leaks. If any leaks are found, make repairs immediately.
6. Check the vacuum separator tank drain valve for movement and drainage.
7. Lubricate main vacuum valve stem and pivot points.
8. Check to ensure that all warning and instructional labels are intact and readable. Replace as necessary for personnel safety.

### 8.4 Semi-annual Inspection

The three plunger valves located above the steam and air tanks should have a small amount of grease applied to the valve stems.

### 8.5 Pre-installation Storage and Maintenance

No servicing of the machine is required during pre-installation storage or in-service storage as long as the unit is kept dry.

### 8.6 Swinging Sleeve Board Pivot Mechanism

A light coat of grease should be between the mating tubes. The pivot mechanism can be taken apart by removing the one screw from the connecting link and lifting up on the pivot tube. Clean any accumulated residue from both tubes. Make sure the plastic thrust washer is in the bottom of the non-moving tube. Apply grease, reinsert the pivoting tube and reconnect the link.

### 8.7 Vacuum Separator Tank Drain

A gravity type drain valve is located on the bottom of the vacuum separator tank. This valve will close when the vacuum pedal is depressed and opens when the vacuum pedal is released. The tank is designed so solids and liquids will fall to the bottom of the tank rather than be drawn out through the vacuum. These liquids will drain into the drainage container between vacuum usages.

This valve should be cleaned with solvent and lubricated with light oil when it becomes sluggish in its movement. The valve is also removable for service or replacement. Removing the valve permits accumulated solids to be removed from the bottom of the tank. When replacing the valve, use a PTFE tape specifically made for stainless steel threads to prevent galling.

#### **NOTICE**

The drain valve and tank fitting are stainless steel. Use special PTFE tape made for stainless steel pipe threads to prevent galling.

### 8.8 Main Vacuum Valve

The stem of this valve should have grease applied quarterly. The disc and spring are replaceable.

## 8.9 Board Vacuum Valve

The board vacuum valve is a 1-1/4" NPT ball valve located in the top of the vertical column. If the machine is properly maintained, this valve should not need any service.

### **NOTICE**

Do not add oil to the pneumatic system. Oil can damage valves as well as stain garments.

Any moving parts or pivots not already covered should have a drop or two of oil applied occasionally to prevent rust and binding.

## 8.11 Optional Filter/Regulator

The filter bowl has an automatic drain which should be checked periodically. Excessive accumulation of oily water indicates the compressor receiver tank may need to be drained or the compressor is passing oil due to wear or excessive lubrication injection. If the filter cartridge is dirty or plugged, it can be removed and cleaned with compressed air or replaced. If the bowl or bowl guard is damaged, it should be replaced. See the Parts Illustrations section of this manual for more information.

## 8.12 Padding

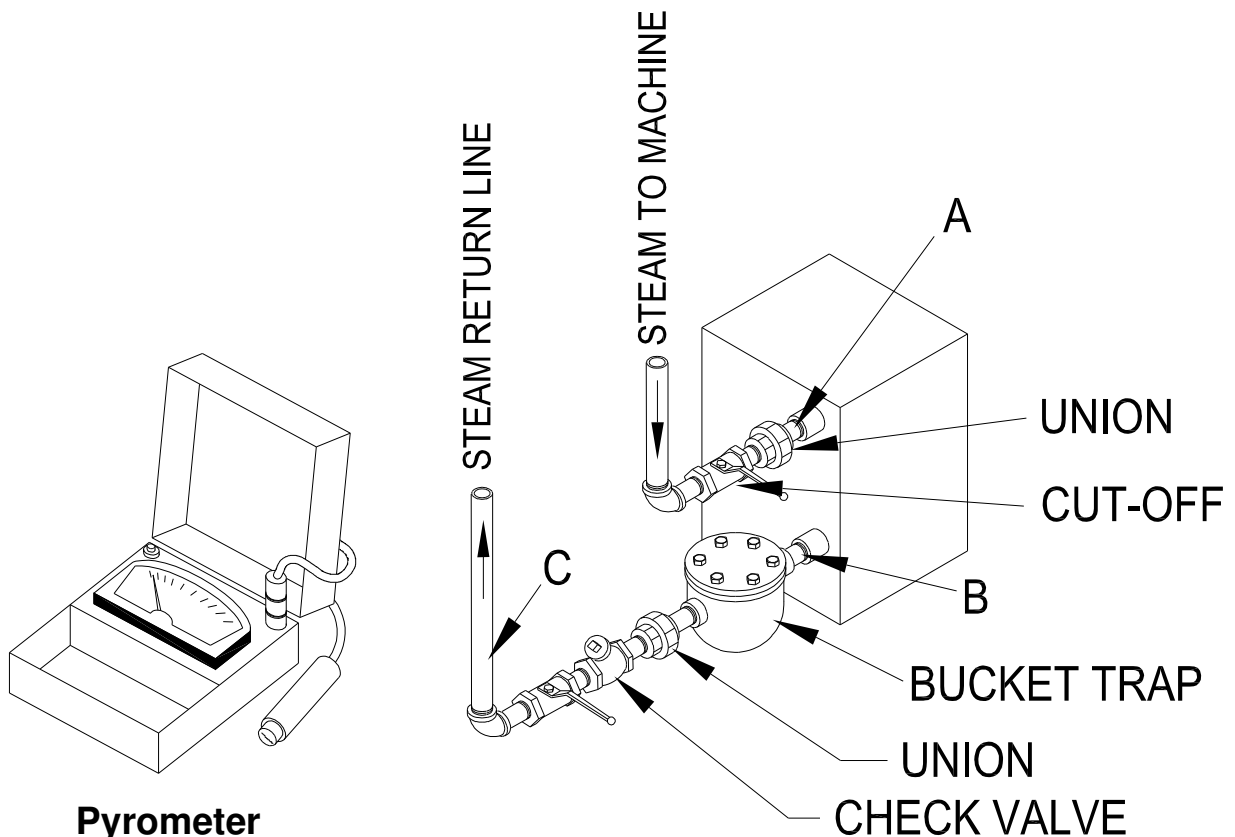
The large nose and catch rack cover may need replacement due to wear. See the Padding List section of this manual for the correct part number.

## 8.13 Checking the Steam Trap

### **CAUTION**

Steam piping, valves and traps are hot when the steam pressure is on. Wear gloves and eye protection when beginning testing, repair, service or replacement of steam heated components.

Steam traps must be working correctly for proper heat to the machine. An inexpensive pyrometer is used to check the temperature of the piping system and compare readings.



### **Pyrometer**

#### **Instructions:**

1. Read temperatures at A, B and C in degrees Fahrenheit.
2. If B is more than 10° lower than A, the trap is not dumping correctly.
3. If C is less than 40° lower than B, the trap is hanging open. Note: with a bucket trap, C is usually 70° to 100° lower than B.

#### **Example:**

1. A = 300°; B = 295°; C = 210°: trap is OK
2. A = 300°; B = 250°: trap is not dumping
3. A = 300°; B = 295°; C = 294°: trap is hanging open

## 9. Troubleshooting & Support

This troubleshooting guide lists most of the conditions that may be encountered with this machine. It also provides potential causes and remedies for each condition.

### **WARNING**

Use the appropriate lockout/tagout method for making repairs and/or adjustments. Extra precaution should be taken in case of unpredictable operation due to unknown nature of defective component.

### 9.1 Air leaks through spotting gun when not in use

- A. The disc in the air valve is defective and needs replacing.
- B. Air valve foot pedal linkage is out of adjustment, holding the air valve open.
- C. The air valve pedal upward travel stop bolt is out of adjustment preventing the pedal from rising far enough to release the valve.

### 9.2 Steam or water comes out of spotting gun when not in use

- A. The disc in the steam or water valve is defective and needs replacing.
- B. Steam/water pedal linkage is out of adjustment, holding the steam valve open.
- C. Water valve lever actuating screw is out adjustment holding the water valve open.
- D. The pedal upward travel stop bolt is out of adjustment, preventing the pedal from rising far enough to release the valves.

### **NOTICE**

Some condensate will normally collect in the gun and hose. The gun should be blown out before use in delicate situations.

### 9.3 Vacuum is drawn through either nose when the pedal is not depressed

- A. The main vacuum valve disc is defective and needs replacing.
- B. The vacuum pedal linkage is out of adjustment or binding, holding the vacuum valve open.

### 9.4 Vacuum is drawn through the large nose with the small nose in the forward position

- A. The board vacuum ball valve is leaking.
- B. The small nose is not fully pulled forward against the stop.
- C. The small nose forward stop is out of adjustment allowing it to come too far forward or not far enough forward.

### **9.5 Vacuum is drawn through the small nose when it is in the rear position**

- A. The pivot mechanism needs to be taken apart, cleaned and have a liberal amount of grease applied. Note: This metal-to-metal seal will require periodic greasing.
- B. The small nose is not fully pushed against its rear positive stop.
- C. The small nose rear positive stop is out of adjustment and not allowing it to go far enough to the rear.

### **9.6 Loss or reduction in vacuum**

- A. The small nose is not against its positive stop, front or rear, causing vacuum to be drawn through both noses.
- B. The drain valve on the bottom of the vacuum separator tank is stuck open.
- C. The drain valve on the bottom of the vacuum separator tank is stuck closed causing the tank to become filled with residue.
- D. The vacuum channels from the noses have not been flushed and residue is blocking the channels.
- E. Vacuum valve linkage is out of adjustment.

### **9.7 Discolored residue coming from spotting gun**

- A. The Steam/water and/or Air tanks need to be drained.
- B. Oil is coming through the compressed air system from the compressor.

### **9.8 Too much steam, water or air**

- A. The associated metering valve is open too much.

### **9.9 Too little steam, water or air**

- A. The associated metering valve is not open enough.

### **9.10 Leaks around the steam, water or air valves**

- A. The valve cap nut is loose.

### **9.11 Leaks around the metering or drain valve stems**

- A. Packing nut is leaking, try tightening the stem packing nut.
- B. Packing nut is leaking, replace O-ring.

### **9.12 Vacuum separator tank drain valve sticks open or closed**

- A. Residue accumulation: clean with solvent and lubricate with light oil.

### **9.13 No steam when foot pedal is depressed**

- A. The metering valve is turned off.
- B. The pedal linkage is out of adjustment.

### **9.14 No water when foot pedal is depressed all the way down**

- A. The metering valve is turned off.
- B. So much water has been used that the water tank is drained and the tank is full of steam.
- C. The pedal linkage is out of adjustment and not allowing the steam valve lever to come down far enough to actuate the water valve lever.
- D. The water valve lever actuating screw is out of adjustment and does not engage the water valve lever.

### **9.15 No air when foot pedal is depressed**

- A. The metering valve is turned off.
- B. The pedal linkage is out of adjustment.

### **9.16 Small nose (swinging sleeve board) pivoting arm is difficult to move**

- A. Swing sleeve board pivoting mechanism needs cleaning and greasing.
- B. The board vacuum valve is binding with residue. Flush with solvent through the large nose and follow flush with lubricant. Work the pivot mechanism several times.
- C. The forward and rear stops may be out of adjustment allowing the arm to over travel. Note: Under travel will cause vacuum leaks.

### **9.17 Moisture and residue are not drawn out of the nose area**

- A. See paragraph 9.6 Loss or reduction in vacuum.
- B. The nose end of the board is too low. Nose end needs raising by elevating machine base on nose end.



## 10. Parts Ordering Information

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Please have the model number and serial number of the machine available when ordering parts. This information is found on the machine's data plate and is recorded on page 1 of this manual.

We recommend Forenta parts, lubricants and padding. Contact your local Forenta distributor or the Forenta Parts & Service Department. See Forenta contact information below.

Part numbers may change. Use the part number shown in this manual when ordering. Your distributor or Forenta will have the latest part number.

Additional manuals are available. An extra manual is useful when multiple people are involved in operation and maintenance.

### 10.1 Before You Contact Us

When you need to order padding, parts or ask for help, please have the following information ready:

- Padding number or part number and description
- Quantity desired for each padding number or part number
- Method of shipment
- Your shipping address
- Your Purchase Order number (if necessary)
- Color of part (only if it needs painting)

### 10.2 Forenta Contact Information

Please direct all correspondence to your local Forenta distributor or:

Attn: Parts Department

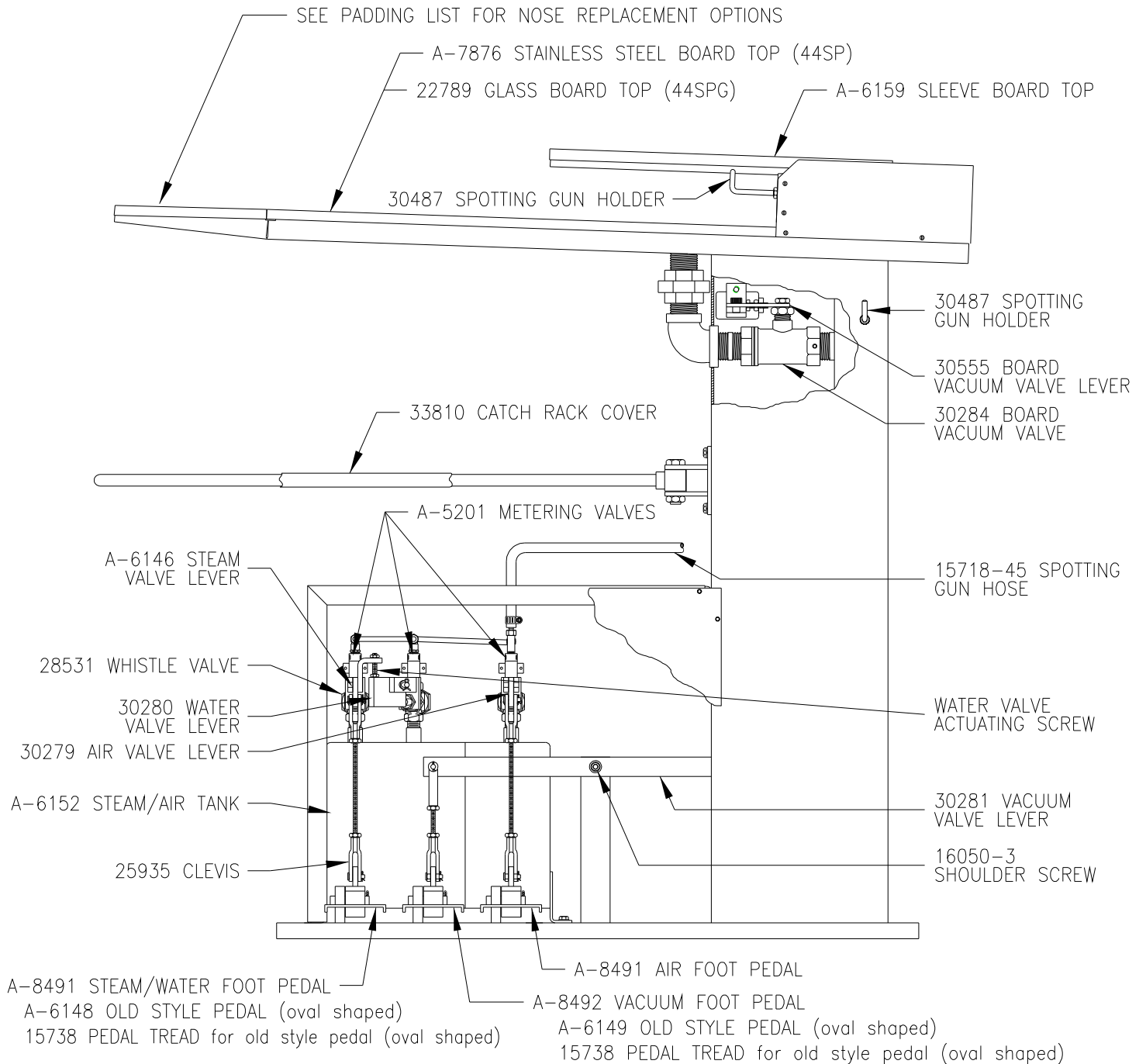
Forenta, L.P.

P.O. Box 607

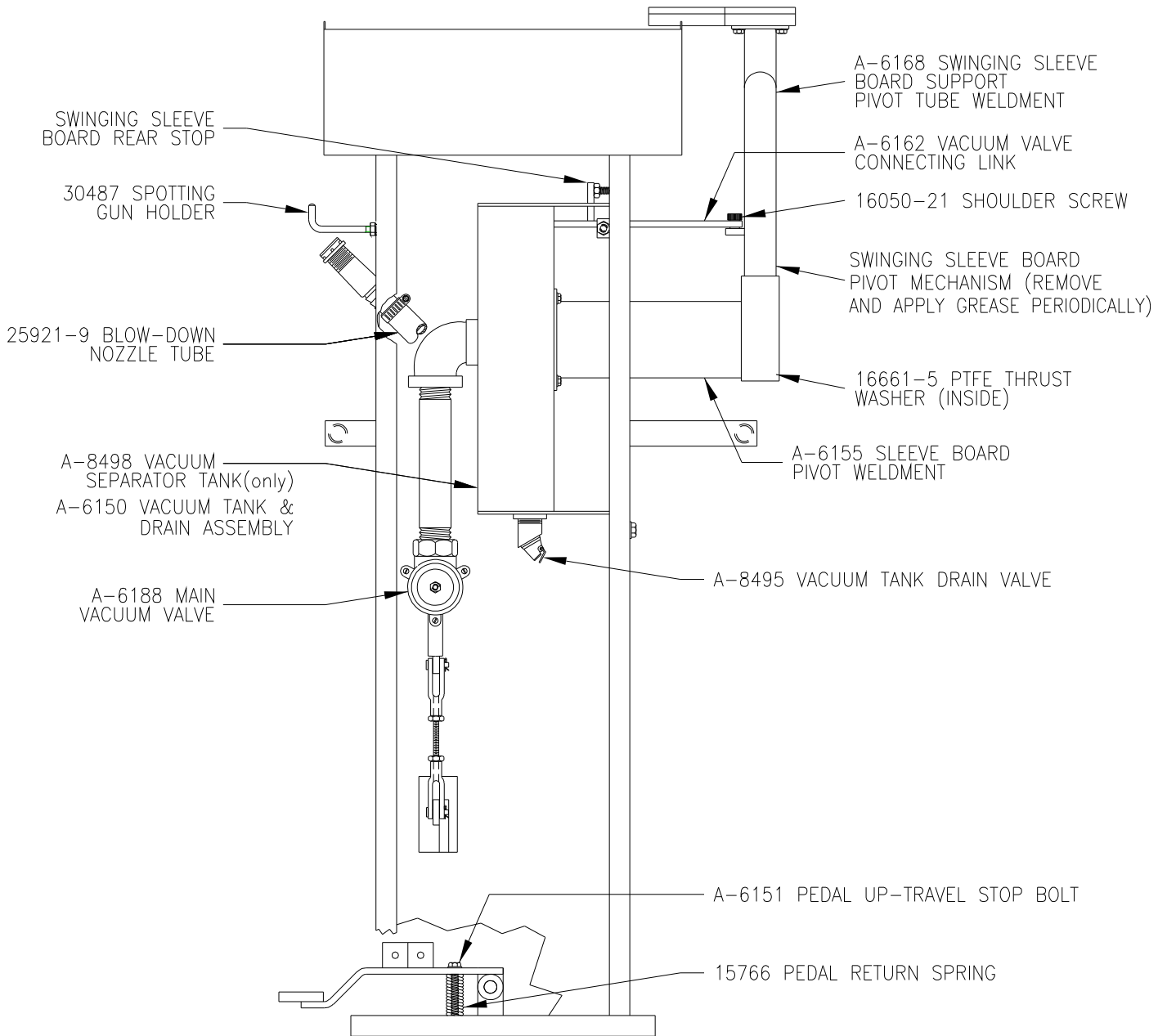
Morristown, TN 37815-0607

E-mail: [parts@forentausa.com](mailto:parts@forentausa.com)

# 11. Front of Machine



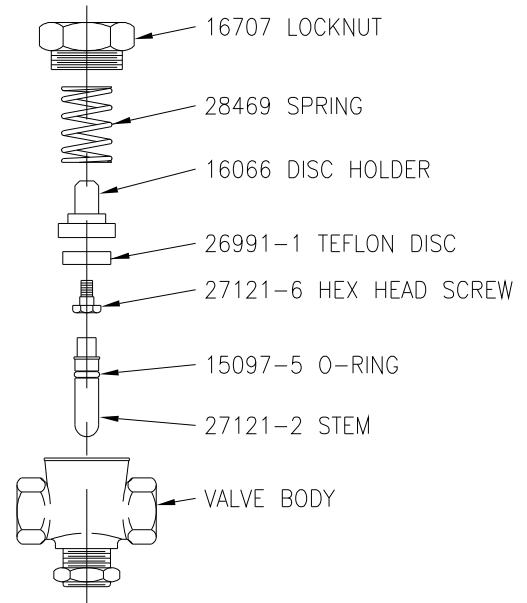
## 12. Right Side of Machine



# 13. Steam & Vacuum Valve

## 13.1 Steam Valve 28531

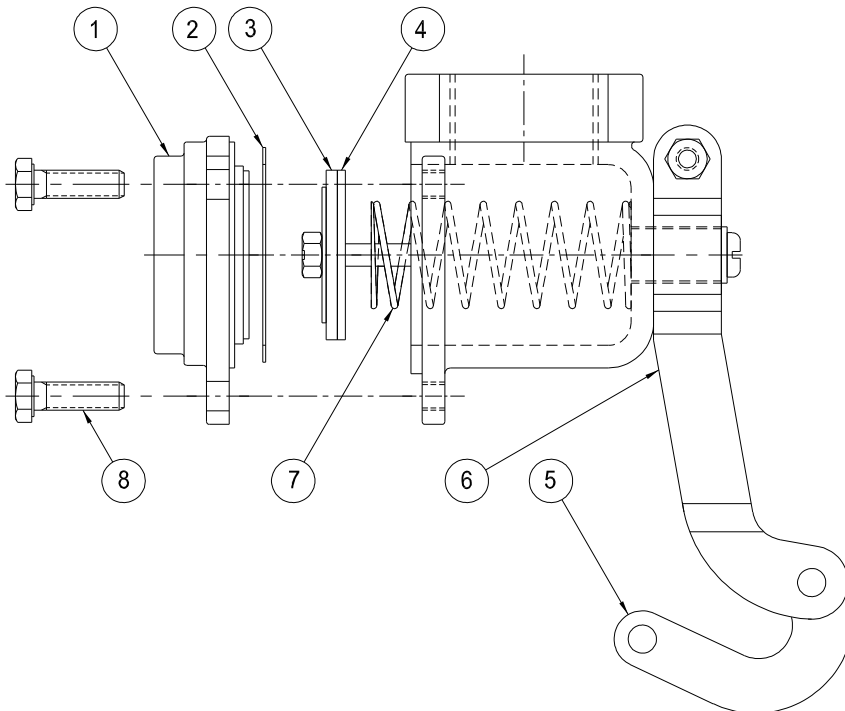
Part Number	Description	Quantity
K-752	Repair kit for 28531	1



## 13.2 Main Vacuum Valve A-6188

Item	Part Number	Description	Quantity
1	25650-10	Valve seat coupling	1
2	25650-3	Gasket	1
3	25650-2	Disc	1
4	25650-1	Stem and disc assembly	1

Item	Part Number	Description	Quantity
5	25650-11	Curved lever	1
6	25650-8	Fulcrum	1
7	37508	Spring	1
8	16372-46	Hex head bolt 5/16"X1"lg	1



## 14. Miscellaneous Parts

Part Number	Description	Quantity
A-6504	Tool holder	1
20672	Bone scraper	1
A-6505	Bowl	2
30385	Drainage container	1
31754	Spotting gun	1
16582-9	Spotting gun hose clamp	2
37510-1	Hex key wrench for large spotting nose	1
A-7631	1-1/4 NPT x 2-inch hose adapter	1
15097-68	O-ring for metering valve A-5201 stem nut	1 each

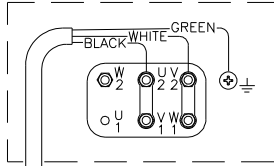
# 15. Optional Attachments

## 15.1 Domestic Vacuum Blower Kit K-700

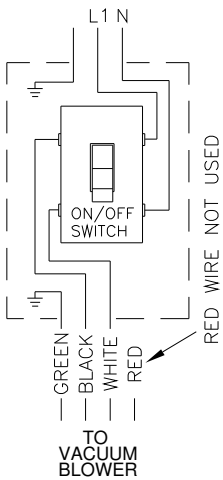
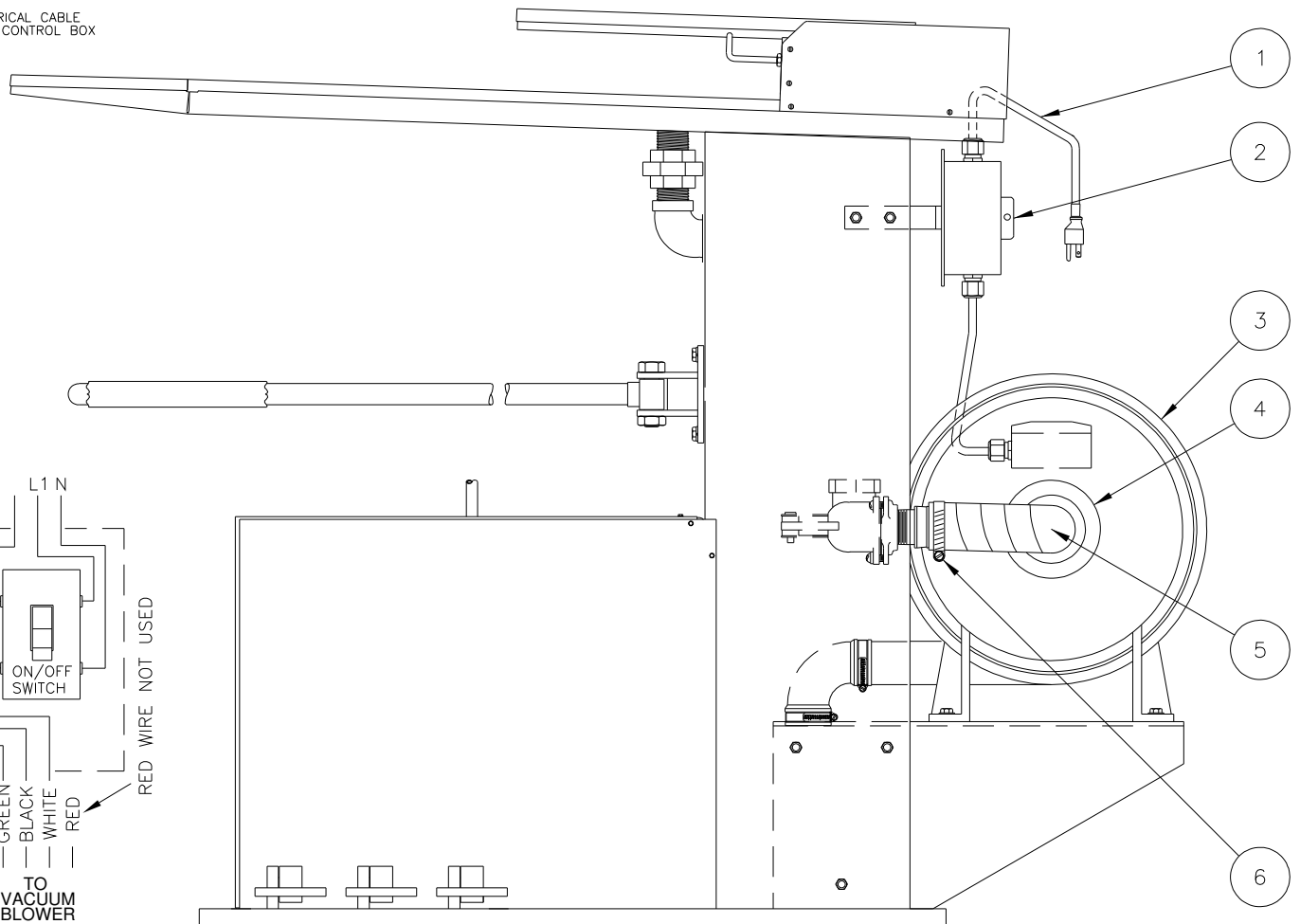
K-700-1 120-volt vacuum kit  
K-700-2 220-volt vacuum kit

Item	Part Number	Description	Quantity
1	22530 17721-11	120-volt power cord 220-volt power cord	1
2	22812	Switch with enclosure	1
3	37213 37214	120-volt, 1-phase vacuum blower 220-volt, 1-phase vacuum blower	1
4	22939	Flexible pipe coupling	1
5	23640-16	12" long vacuum hose	1
6	16582-14	Hose clamp	2

MOTOR ELECTRICAL CONNECTION



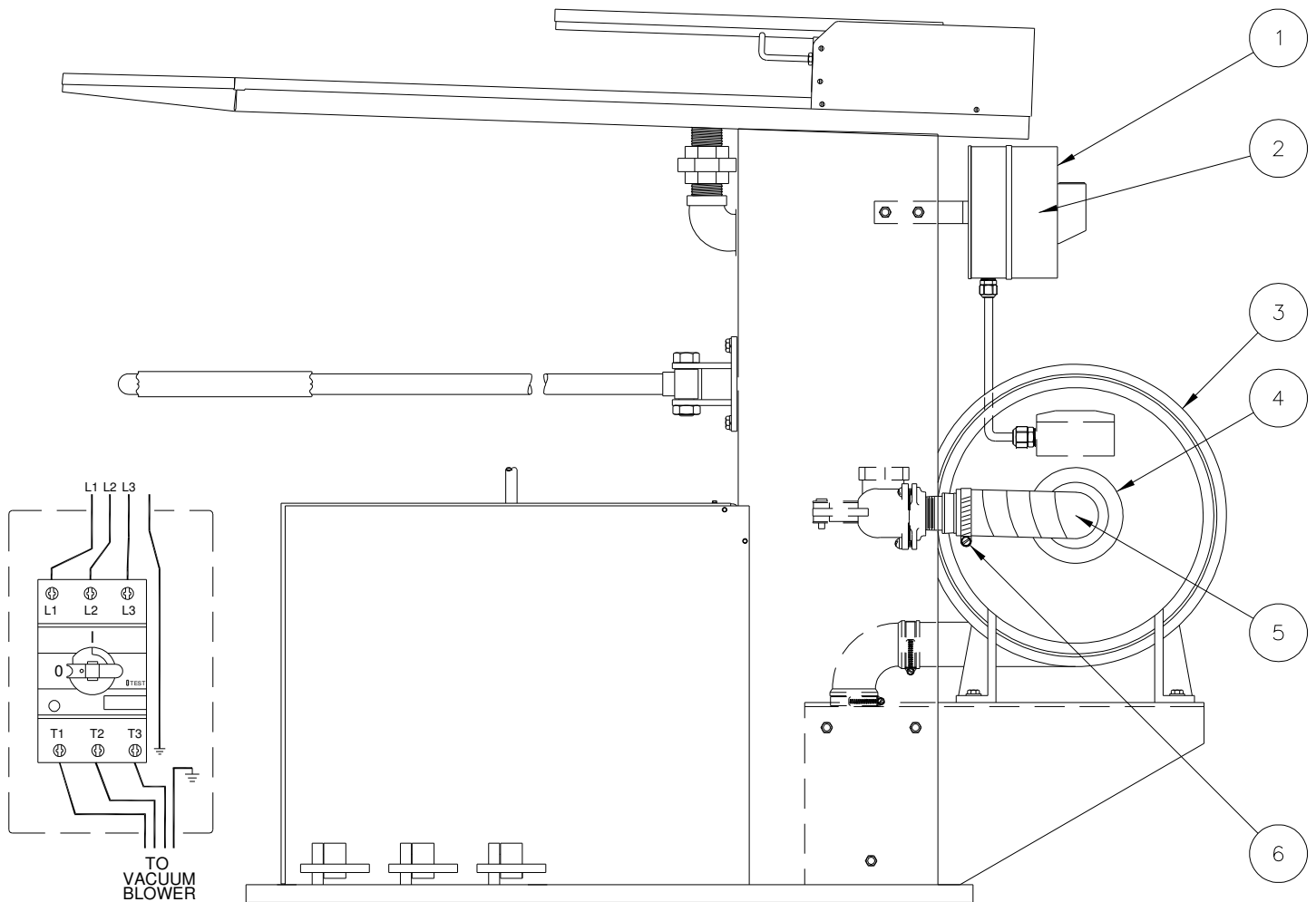
ELECTRICAL CABLE FROM CONTROL BOX



## 15.2 Export Vacuum Blower Kit K-815

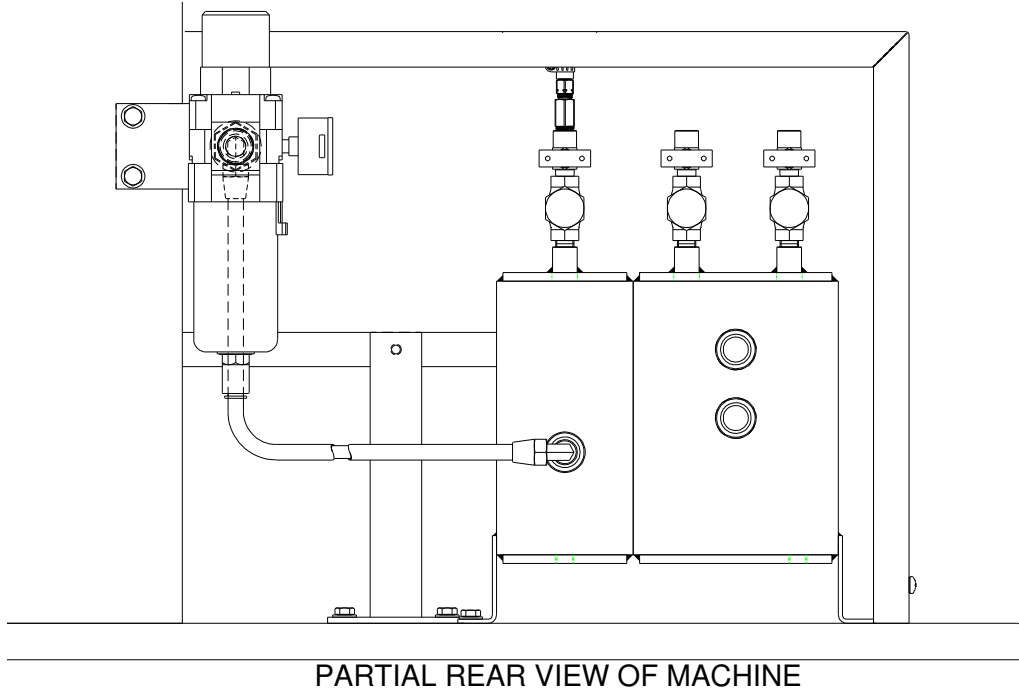
3-phase 230VAC 50 Hz / 400VAC 50 Hz / 460VAC 60 Hz

Item	Part Number	Description	Quantity
1	22744	Switch enclosure	1
2	22746	Motor switch	1
3	22933	3-phase vacuum blower	1
4	22939	Flexible pipe coupling	1
5	23640-16	12" long vacuum hose	1
6	16582-14	Hose clamp	1



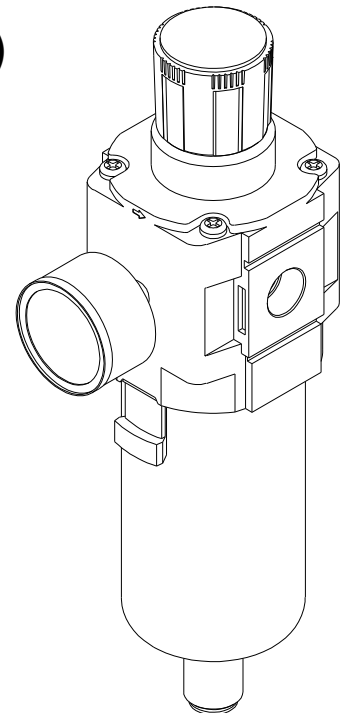
### 15.3 Filter/regulator Kit K-744

Item	Part Number	Description	Quantity
1	37325	Filter/regulator with gauge	1



### 15.4 Compressed Air Filter Regulator 37325 (optional)

Part Number	Description	Quantity
37325	Combination regulator, filter and gauge	1
37325-6	Pressure gauge (1/8 NPT)	1
37325-7	Valve assembly for regulator	1
37325-8	Diaphragm assembly for regulator	1
31691-6	Filter element for filter	1
31691-8	Bowl O-ring seal for filter	1
31691-10	Bowl assembly including O-ring	1





## 16. Padding List

### Models 44SP and 44SPG

Part Number	Description	Quantity
33810	Catch rack cover	1
37520-1	Screw mount style large Teflon nose	1
37520-2	Screw mount style large stainless steel mesh nose	1
16507-6	Screws for screw mount style large nose	2
30483	Spring mount style large Teflon nose	1
37509	Spring mount style large stainless steel mesh nose	1

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