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USER GUIDE

UGC013/1003

TLA Model Tube Loaders

Hopper Loading, Feeding Bin and Direct Feed Configurations

Hopper Loading

Feeding Bin

Direct Feed

DESCRIPTION • Typical applications • Features and options • **INSTALLATION** • Unpacking the boxes • Installing the hopper loading and feeding bin configurations • Unpacking the direct feed configuration • Connecting the control • Compressed air installation • Connecting material lines • Loader preparation • Ratio installation • **OPERATION** • How it works • Adjusting compressed air flow • Sensor Adjustment • **MAINTENANCE** • Preventative maintenance schedule • Cleaning the conveying filter • Cleaning the compressed air filter • **TROUBLESHOOTING**

Please record your equipment's model and serial number(s) and the date you received it in the spaces provided.

It's a good idea to record the model and serial number(s) of your equipment and the date you received it in the User Guide. Our service department uses this information, along with the manual number, to provide help for the specific equipment you installed.

Please keep this User Guide and all manuals, engineering prints and parts lists together for documentation of your equipment.

Date:

Manual Number: UGC013/1003

Serial Number(s):

Model Number(s):

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Introduction

Purpose of the User Guide

This User Guide describes the Conair TLA Loaders. It explains step-by-step how to install, operate, maintain and repair this equipment.

Before installing this product, please take a few moments to read the User Guide and review the diagrams and safety information in the instruction packet. You also should review manuals covering associated equipment in your system. This review won't take long, and it could save you valuable installation and operating time later.

How the Guide is Organized

Symbols have been used to help organize the User Guide and call your attention to important information regarding safe installation and operation.

 Symbols within triangles warn of conditions that could be hazardous to users or could damage equipment. Read and take precautions before proceeding.

1 Numbers indicate tasks or steps to be performed by the user.

◆ A diamond indicates the equipment's response to an action performed by the user.

❒ An open box marks items in a checklist.

• A circle marks items in a list.

 Indicates a tip. A tip is used to provide you with a suggestion that will help you with the maintenance and the operation of this equipment.

 Indicates a note that will help you with the maintenance and operation of this equipment.

Your Responsibility as a User

You must be familiar with all safety procedures concerning installation, operation and maintenance of this equipment. Responsible safety procedures include:

- Thorough review of this User Guide, paying particular attention to hazard warnings, appendices and related diagrams.
- Thorough review of the equipment itself, with careful attention to voltage sources, intended use and warning labels.
- Thorough review of instruction manuals for associated equipment.
- Step-by-step adherence to instructions outlined in this User Guide.

ATTENTION:

Read this so no one gets hurt

We design equipment with the user's safety in mind. You can avoid the potential hazards identified on this machine by following the procedures outlined below and elsewhere in the User Guide.

⚠ WARNING: Improper installation, operation or servicing may result in equipment damage or personal injury.

This equipment should be installed, adjusted, and serviced by qualified technical personnel who are familiar with the construction, operation and potential hazards of this type of machine.

All wiring, disconnects and fuses should be installed by qualified electrical technicians in accordance with electrical codes in your region. Always maintain a safe ground. Do not operate the equipment at power levels other than what is specified on the the machine serial tag and data plate.

⚠ WARNING: Voltage hazard

This equipment is powered by single-phase alternating current, as specified on the machine serial tag and data plate.

Improper grounding can result in severe personal injury and erratic machine operation.

Always disconnect and lock out the incoming main power source before opening the electrical enclosure or performing non-standard operating procedures, such as routine maintenance. Only qualified personnel should perform troubleshooting procedures that require access to the electrical enclosure while power is on.

SECTION
2

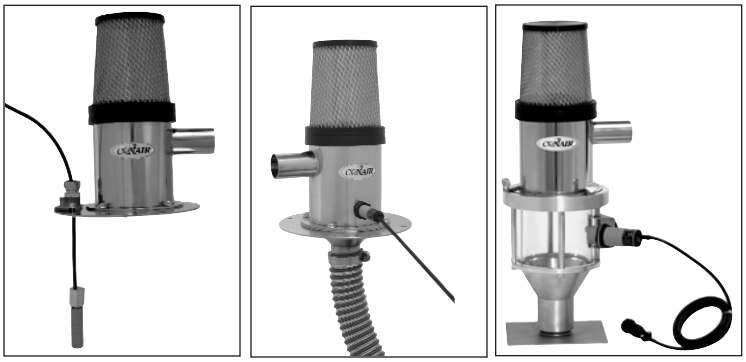
Description

What is the TLA Loader?

The TLA Loader is a self-contained loader designed to transfer typical plastic pellets and regrind by compressed air, from boxes, bins or hoppers to end-use destinations like molding machines, extruders or other hoppers or bins.

Typical Applications

The tube loader is available in three configurations:



Hopper Loading **Feeding Bin** **Direct Feed**

All TLA's transfer material in an identical manner, but discharge the transferred material in different ways.

The **Hopper Loading Model** is intended to be mounted through a hole in the flat-top of a bin or hopper and material will be discharged into them.

The **Feeding Bin Model** is similar to the hopper loading version, but is equipped with a small "zero-pressure" funnel at the base for use on blending or feeding bins that are sensitive to air pressurization that may effect feeding accuracy.

The **Direct Feed Model** is equipped with a cylindrical sight glass on the bottom to allow mounting directly to a machine throat. The sight glass chamber includes a small funnel at the bottom to direct the flow of material from the sight glass to the machine throat.

Overview of Features and Options

Features

Standard TLA's are equipped with a **control box** with an on/off switch. From this box (remoted from the actual loader mounting) the demand level sensor, solenoid and power supply cable are connected.

Compressed air must be supplied to the TLA via the compressed air filter located at the control box. The TLA control will then turn the air supply on and off as needed by the demands of the process, providing compressed air to the venturi, located near the material pick-up point.

Option

The **ratio loading option** allows you to load regrind material at the same time as virgin material. The ratio loading option includes two feed tubes, two venturis, a "Y" tube on the loader inlet and two solenoids.

SECTION
3

Installation

Unpacking the Boxes

1. **Carefully uncrate the TLA Loader** and its components.

2. **Remove all packing material,** protective paper, tape, and plastic. Compare contents to the shipping papers to ensure that you have all the parts.

3. **Carefully inspect all components** to make sure no damage occurred during shipping. Check all wire terminal connections, bolts, and any other electrical connections, which may have come loose during shipping.

4. **Take a moment to record serial numbers** and specifications in the blanks provided on the back of the User Guide's title page. The information will be helpful if you ever need service or parts.

5. **You are now ready to begin installation.**

General Installations

Installation of a TLA loader consists of mounting three separate devices: The loader itself (mounted to the material destination), the venturi (installed on the conveying tubing near the material pick-up point) and the control enclosure (mounted between the loader and the material pick-up point).

Installing the Hopper Loading and Feeding Bin Configurations

The **Hopper Loading and Feeding Bin Configurations** are equipped with a standardized mounting flange, allowing them to be freely mounted directly to Conair hoppers and bins or custom-mounted to a user-provided hole pattern in a hopper lid.

TIP: The loader should be placed with the inlet tube oriented towards the material source, so that the conveying hose follows the shortest, straightest route possible.

TIP: Gasket material (not supplied) may be installed between the loader and the bin being filled to assure a dust-free seal, but it is not required for normal loader operation.

1 **For hopper loading or feeding bin installations place the TLA on the top of the hopper to be filled.** A 6 5/8 inch diameter clearance hole in the destination hopper is required for mounting.

2 **Secure the loader into its mounting hole.** The loader can be secured with bolts or hold-down clips. Use the pre-drilled holes in the mounting flange to bolt the loader into position OR use the hold-down clips (supplied with most Conair hoppers), tightened against the outer edge of the mounting flange.

NOTE: If the loader is to be used in a hole that is too large and/or sized for a larger loader mounting flange, an adapter plate must be used for secure mounting.

Mounting instructions for the feeding bin versions continue on the next page.

Additional Feeding Bin Installation Notes

For **Feeding Bin** model TLA's, a cone is located below the mounting flange to maintain a small reservoir of loaded material within the loader body. This reservoir prevents compressed air used for the TLA's loading operation from being directed down through the feeding bin, potentially effecting metering accuracy if feeding and loading occur simultaneously.

The outlet of this "zero-pressure" cone is the material discharge point of the TLA and may be outfitted with a length of standard flex hose (included) if it is desirable to maintain a lower inventory of material in the bin being filled. The 1 3/4 inch ID flex may be cut to length and secured with a hose clamp around the outlet of the cone. The hose length should match the desired level of material in the bin.

TIP: Most flex hose contains a natural curve, since it is typically shipped and/or stored in a roll. This curve may be utilized to direct the material outlet of the TLA to a specific location within the bin being filled. This location may be above the actual metering mechanism of the bin being filled, or away from it; whatever is deemed desirable for optimum operation.

Installing the Direct Feed Configuration

⚠ **CAUTION:** To avoid personal injury or damage to the loader, the loader must be mounted firmly to the machine it is filling. If the unit is not mounted firmly the loader could be accidentally moved out of position.

The **Direct Feed Model** comes equipped with a cylindrical sight glass on the bottom allowing it to be mounted directly to machine throat. The sight glass has a small funnel at the bottom to direct the flow of material from the loader through the glass, to the machine throat.

✎ **NOTE:** To make installation easier, the tube loader separates from the glass chamber with three perimeter clamps located just above the glass section.

✎ **NOTE:** An additional adapter may be required to funnel the outlet of the sight glass down to the size of the processing machine throat.

1 Drill the glass chamber's mounting base as needed to match the molding machine throat.

2 Bolt the direct feed chamber directly to the processing machine throat.

3 Secure the loader onto the glass chamber. The loader may be oriented as needed. Secure the three perimeter clamps to hold the loader securely.

TIP: We recommend the loader be placed with the inlet tube oriented towards the material source, so that the conveying hose follows the shortest, straightest route possible. Orient the control so that it is both visible and easy to access.

TIP: Gasket material (not supplied) may be installed between the glass chamber and the processing machine throat to assure a dust-free seal, but it is not required for normal loader operation.

Connecting the Control

WARNING: Improper installation could result in equipment damage and severe personal injury from electrical shock.

Electrical connections should be made only by qualified personnel. This machine requires a well-grounded circuit and single-phase alternating current as specified on the data plate.

The TLA control enclosure is a separate assembly and is typically mounted away from the loader in a convenient location for the user.

1 **Choose a mounting location.** The mounting location should be within the length of compressed air tubing to the venturi and demand sensor wire to the loader, both which are supplied with the TLA package.

2 **Mount the control.** Use the provided mounting bracket to mount the control to a flat, vertical surface with two screws.

3 **Connect the compressed air to the air filter on the control package.** *See Section 3, Compressed Air Installation.* The control's power cord should be plugged into 120 Volts AC. Be sure to allow for easy access and visibility of the pressure adjustment knob on top and the gauge below it.

CAUTION: Be sure to provide hazard-free routing of all tubes and wires to and from the control, to keep them away from hot or moving surfaces and out of the way of personnel.

Compressed Air Installation

Your TLA loader uses compressed air to move material. The inlet for your compressed air supply line is on the control package. The control package consists of the control enclosure itself, a solenoid valve (to control on and off cycles of the compressed air flow) and a filter/regulator module.

See Section 3, Ratio TLA Installation for installation of Ratio TLA units.

1 Connect the compressed air to the 3/8 inch NPT female inlet of the compressed air filter. The compressed air source must deliver a maximum of 125 psi of clean, dry (non-lubricated), air pressure.

TIP: It is also acceptable to use a rigid, 3/8 inch NPT compressed air supply pipe to hold the entire control assembly. Use care when turning the control assembly onto the compressed air pipe.

IMPORTANT: The air connected to your TLA Tube Loader cannot be lubricated, if it is the filter media used in the Tube Loader will rapidly foul; severely reducing conveying performance by blocking off air flow through the filter. In addition, your material will become contaminated with lubrication, since the TLA uses compressed air to move material.

2 Make connections from the solenoid on the control assembly and the venturi with the provided compressed air tubing. Quick disconnect fittings are provided for these connections. The tubing should be cut to length for maximum efficiency of the system. Use straight cuts to assure a good square tubing end. Connections are made by inserting the tubing into the mating fittings on the solenoid and the venturi. Confirm a good connection with a gentle tug.

CAUTION: Be sure to provide hazard-free routing of the tubing, to keep it away from hot or moving surfaces and out of the way of personnel.

NOTE: Use thread sealants or tape sparingly to prevent contamination of the compressed air circuit. A quick disconnect fitting may be used to facilitate easy air line connection and removal for the main supply line, but the fitting should not be the type that restricts air flow.

Connecting Material Lines

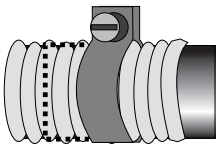
Typical TLA Tube Loader installations use flex hose to connect the TLA loader to the venturi.

IMPORTANT: The material line should be as straight as possible. Avoid loops and S-curves in flexible hose This can hurt conveying performance.

1 Connect the venturi to the material supply via a feed tube device (style depends upon the application). The venturi must be positioned correctly in order to convert compressed air into conveying power for the material to be transferred. An arrow on the venturi provides orientation. The venturi is typically connected directly to the material pick-up device with a matching coupling or a coupler integrated into the material feed tube.

TIP: Rigid tubing like aluminum and stainless steel will last much longer and provide a straighter path for material flow, usually increasing the loader's ability to convey material. When used, rigid tubing should be coupled tightly to prevent air leaks. It should be routed to minimize bends, and should be connected to the loader with flex hose to allow quick disconnection of the loader.

2 Attach flex hose over the inlet stub of the loader. Secure the hose with a hose clamp. The hose should be fitted over the inlet stub at least 1-1/2 inches. Position the hose clamp at least 1/4 inch from the end of the inlet.



3 Connect the flex hose to the venturi. From the loader to the venturi, attach the flex hose in the same manner as described above, being sure of proper orientation (note arrow on venturi). Reduce flex hose down to the shortest possible length, to avoid wasting compressed air energy.

IMPORTANT: Flex hose is typically considered a wear item, so it should be routed or secured in such a way as to make replacement easy. Flex hose should not be routed close to electrical wires, especially control signal wires since static electricity, commonly generated by conveyed material can be discharged to the wires, fouling electrical operation.

NOTE: When connecting a vertical feed tube or wand:
(used for conveying out of open-top boxes) sufficient slack should be left to allow movement of the feed tube when the material supply gets low, but "valleys" or droops in the hose should be avoided.

When connecting a horizontal feed tube:
(used for conveying from surge bins, silos or granulators) less slack will be needed, but flex hose is still suggested to allow the hose to be easily disconnected in the event of trouble. A hose clamp should be installed to prevent the hose from coming unconnected from the feed tube.

Loader Preparation

1 **Once the TLA is installed properly make sure that the filter module is located correctly on top of the loader, to assure that loaded material stays in the loader, yet conveying air is exhausted.** The filter module connects to the loader with a simple friction fit over the top of the loader's tube body. It is here that material and air separation will occur while loading.

2 **Set up the level sensor to match your needs.**
Feeding Bin model TLA's use a demand sensor located in the tube body of the TLA and require no further set-up other than assuring that the sensor is securely installed and the plastic jam nuts on the inside and outside of the loader body are holding it securely.

Hopper Loading TLA's use a hanging sensor that can be adjusted up and down in the receiving hopper below the TLA to set the desired material level. The sensor height adjustment cord grip is on the loader's mounting flange and may be loosened with counter-clockwise turns of the tightening ring to allow the sensor's wire to slip through the cord grip**.** Adjust the sensor to the desired level down inside the receiving hopper and then re-tighten the ring. Tug on the sensor cable to be sure the cord grip is secure and will resist loosening due to vibration.

Direct Feed TLA's use a solid state sensor on the sight glass that may be height-adjusted up and down the length of the glass, but must also be adjusted for the proper distance from the glass. First, locate the sensor bracket to the approximate vertical position on the glass (this may be easily re-adjusted later) by loosening the thumb screw on the sensor holding bracket and allowing the bracket to move up and down. The bracket may also be loosened and moved to another sight glass post, if desired. Once in the desired position, tighten the thumb screw to lock the bracket in place on the post. Small "feet" on the bracket will press against the glass while the thumb screw tightens against the glass to create a solid 3-point mounting for the bracket and sensor. Assure that the sensor face itself is not touching the glass by loosening the sensor mounting nuts as need be to retract the sensor away from the glass. As long as the bracket is tightened properly in the desired vertical location, the sensor itself may be adjusted in and out for proper sensing of the material through the glass. Using the plastic adjustment nuts, locate the sensor in the bracket so that it comes within the thickness of a business card or piece of paper from the glass. It should not touch the glass, but be as close as possible. Lock the adjustment nuts firmly to secure this sensor/glass clearance. Once the sensor is locked on the bracket at the proper depth, the bracket may then be freely moved to different levels without effecting the sensor depth adjustment. Whenever the sensor bracket is moved, it is not required to adjust the sensor depth again. But assure that the sensor is still firm in the bracket and that the bracket is locked tightly so that it will not move with vibration, etc. See *Section 4, Sensor Adjustments.*

IMPORTANT: The hanging demand sensor must be located in an area of the receiving hopper, amply away from the side walls of the hopper or other obstructions that may foul the sensor's ability to 'see' material. The sensor will be adjusted later to sense loaded plastic material. If the sensor is in the vicinity of hopper walls or other parts, at rest or after loading, the sensor will misinterpret the level of material and loading operation will be fouled.

Ratio TLA Installation

Any TLA loader may be equipped for "ratio" loading so that two materials (usually virgin and regrind) may be loaded simultaneously. The equipment for this function consists of a "Y" tube that is installed on the inlet stub of the loader, another filter/regulator/solenoid package (but not an additional control), a pick-up device (feed tube), a second venturi and both compressed air line and material hoses. If included at the time of original purchase, all of these items will be included with your TLA. If not included, they may be added later and installed along with your original system.

To Install the Ratio Option

1 Install the "Y" tube on the inlet to the TLA loader and connect the incoming flex hose to the two venturis. Decide which line will convey which material. Connect the second venturi to the second solenoid package in a manner similar to the first venturi/solenoid.

The regrind solenoid, must be plugged into the control box receptacle, so that it is energized at the same time as the first solenoid.

Compressed air must be provided to the second filter/regulator in exactly the same fashion as the first and the second venturi should be joined to the second solenoid in a similar manner as the first.

NOTE: Unlike other types of loading systems that alternately load virgin and then regrind, back and forth, compressed air conveying systems load the two materials at the same time, through the "Y" tube. Therefore, energizing of both solenoids occurs at the same time.

Once completed, the installation should provide dual-energized compressed air solenoids, connected directly to two regulators, so that the material flow through each venturi may be regulated independently as material flows.

See Section 4, Adjusting Compressed Air Flow to properly adjust air flow.

SECTION
4

Operation

How it Works

Once the control switch is turned on, the TLA uses a solid state sensor to determine if material is needed at the material destination (hopper, bin, sight glass, etc). If the sensor “sees” material, the loader will remain in an “at rest” mode with its solenoid de-energized and no compressed air flowing.

Once the material level drops (typically due to process consuming material) and the TLA sensor no longer ‘sees’ material, the solenoid is energized, turning on the supply of compressed air to the venturi.

The venturi is located near the material supply and creates a vacuum on its inlet by the rapid rush of compressed air through it. This vacuum pulls on the material source and begins a flow of material through the venturi. Once inside the venturi, the material is then ‘pushed’ by the compressed air through the flex hose, towards the loader.

Once inside the loader, the compressed conveying air is separated from the conveyed material by a combination of gravity, and the filter located on top of the loader. The filter provides a slick, fine mesh filter screen within an expanded metal support cage. Material and dust will stay inside the filter and conveying air will exhaust through the filter to atmosphere. Unless the material being conveyed is sticky or wet, the material will fall away from the filter surface and join other loaded material in the destination hopper or machine throat.

The compressed air energy of the TLA will remain on and material will flow until the demand sensor of the TLA once again “sees” material. At this time the sensor will determine that the material level is satisfied and de-energizes the compressed air solenoid, stopping compressed air and material flow and returning the system to rest, until the process calls for more material and starts the cycle again.

Adjusting Compressed Air Flow

The **TLA** is equipped with a compressed air regulator that will determine the amount of air that flows to the venturi at the material source. This air flow will determine how much material will be transferred and how fast your process will be replenished with material, with each loading sequence.

Adjusting the air setting. It is best to adjust the air setting to its lowest possible level in order to conserve compressed air energy. Parameters such as distance, material line bends, the flow characteristics of the material and vertical rises in the flex hose all play a part in finding the proper setting. Ultimately, trial and error settings over several loading sequences will work best to determine the right air level. Too low of a setting may not move material effectively enough to satisfy demands cycle after cycle. Too much air will waste energy and cause the filter on the TLA to prematurely blind in an attempt to evacuate excess air. Refer to the gauge on the regulator and adjust the air to the lowest possible setting that assures reliable material transfer.

Adjusting air settings for ratio units. Ratio units have two compressed air settings to consider; usually one is dedicated to virgin material and the other, regrind material. Both material paths terminate at the "Y" tube at the TLA loader inlet so care must be taken to adjust each in consideration of the other.

TIP: If the goal of your system is to evacuate a granulator of regrind in the most effective manner, the regulator should be adjusted first for optimum flow, as described above. Since regrind material is typically more difficult to load than virgin material, it will take more compressed air (a higher setting on the regulator) than virgin material. Once regrind is adjusted, then the virgin material flow should be adjusted. Notice the flow of material through the flex hose as both are loaded. The virgin is likely to flow much stronger than the regrind and may actually choke off the regrind flow, requiring new settings to balance out the flows to your needs. Keep in mind that distances, bends, etc. all play a part in effective compressed air settings, so continue to adjust both levels until satisfactory loading performance is achieved for both materials.

NOTES: The TLA compressed air material loader with ratio capability is not intended to be a blending or metering device for two materials. It can only create air flow that will allow the conveyance of material to your process. Expectations of any precision in the loading process will not be achieved.

Sensor Adjustments

Capacitive Level Sensors use their own on-board electronics to sense the presence or absence of material located in front of the flat face of their cylindrical bodies and trigger loader control functions as a result. Typical uses are as "demand sensors" , to start and stop loading by indicating the presence or absence of material in a bin, loader or sight glass. Before use, sensors must be set to detect the material being conveyed and to ignore the sensor's surroundings (metal, sight glasses, etc) as well as set to ignore material dust that may collect on the sensor face. In some cases, sensors must be reset for each new material being conveyed.

General Sensor Adjustments

Every sensor is equipped with a multi-turn screwdriver adjustment, located within a small hole on the corded end of the sensor body. Most are also equipped with an indicator light to signal response by the sensor. With the sensor in the correct position for operation (see below), the adjustment screw can be rotated clockwise for more sensitivity and counter-clockwise for less sensitivity. The small signal light on the sensor illuminates when the sensor does not "see" material. As a guide, the light will go off, when the sensor detects something in front of its face. It should be adjusted to ignore glass and adjacent surfaces and fine tuned to respond only to the presence of material. This may require several back and forth adjustments to optimize the setting.

Demand Sensor in the Loader Body, or on the Sight Glass

Demand sensors are utilized in two different ways: In direct contact with material or through a sight glass.

When used in direct contact with material, it is recommended that the sensor be initially adjusted for sensitivity and then re-adjusted, once the sensor becomes coated with typical material fines, common to plastics conveying.

Sensors that sense material through glass must be adjusted to "ignore" the window and sense only the material on the other side. These adjustments must be made with the material to be conveyed, so it suggested that they are made during normal operation. Furthermore, the sight glass may become coated with a certain build-up of plastic dust (from static electricity attraction, etc) and the sensor should be adjusted (and/or re-adjusted) to ignore this condition. Sensors that are mounted in a movable bracket that allows different levels to be set must be initially set to the

continued

Sensor adjustments continued

Demand Sensor in the Loader Body, or on the Sight Glass (continued)

proper distance from the sight glass to assure consistent operation. Optimum distance from the sight glass for a sensor is the thickness of a piece of paper and is established with the two locking nuts around the exterior of the sensor itself. Tighten the sensor bracket's thumb screw firmly, then move the sensor in or out to lock-in the correct distance from the glass. This setting permits the closest possible contact with the glass or window, yet is back just enough to be isolated from heat variations that could effect sensor operation. Once set, the sensor bracket may be moved up and down (by loosening the thumb screw) without the need to re-adjust the sensor for distance from the glass.

Demand Sensors Hanging on the Material Hopper

These sensors are supplied with a small dust cap on the corded end, that may be easily lifted to allow the settings detailed above. Once sensitivity adjustments are made (detailed in the prior section, **Demand Sensor in the Loader Body, or on the Sight Glass**), the cap should be replaced to keep material dust out of the screwdriver slot in the back of the sensor.

SECTION

5

Maintenance

Preventative Maintenance Schedule

- **Daily**
  - ❒ **Clean the conveying filter.**
    If you are running a dusty material or regrind you may need to check and clean the filter more often. The filter also should be cleaned whenever you change materials.

- **Weekly, or as needed.**
  - ❒ **Drain the compressed air filter trap.**
    Depending on your compressed air system, you may see moisture or oil in the compressed air filter trap. Open the petcock on the bottom of the trap to drain. If you see oil we recommend installing a coalescing type filter ahead of the standard moisture removing filter.

Cleaning the Conveying Filter

WARNING: Disconnect power and air sources. Always disconnect the main power source and compressed air source before removing the filter. This prevents the loader from starting during servicing, which could cause injury from flying debris.

CAUTION: Wear eye protection. We recommend that you use vacuum air for cleaning filters and other parts of this equipment. If you use compressed air to clean the equipment, you must wear eye protection and observe all OSHA and other safety regulations pertaining to the use of compressed air.

The filter module atop the TLA must be cleaned periodically to assure that compressed air evacuation from the loader is efficient. If this filter becomes clogged the conveying air will seek an alternate escape route, possibly forcing its way out through crevices in the receiving hopper or elsewhere. Loading performance could be hampered by the resistance that the filter gives to air (and material) flow.

The filter is constructed of a very fine (200 mesh) filter media that is slick to the touch and therefore allows material to easily fall off. The outside of the filter is an expanded metal housing, molded into a mounting ring at the bottom and topped with a molded cap, and provides a support frame for the filter media.

1. **Remove the filter.** The filter module is friction fitted to the top of the loader body and may be easily removed by hand, without tools.

2. **Inspect the filter carefully.** Depending upon the material that was conveyed, the filter may only require a brief wipe-out of the inside to remove residual material fines and dust. Always check for holes that could allow the passage of fines or dust to the loader motor. Replace the filter if it is damaged, excessively worn or too clogged with fines and dust to clean. Be sure to discard and replace any filter that has become hopelessly clogged with material dust. Do not attempt to repair a damaged filter. Replace the entire filter if the rubber seal is damaged or excessively worn.

3. **Clean the filter.** For extreme material or color changes, the filter should be wiped out and then vacuumed. We recommend that you vacuum the filter surfaces. If you use compressed air, you must wear eye protection and follow all safety regulations pertaining to cleaning equipment with compressed air. Do not attempt to repair a damaged filter.

CAUTION: A TLA filter that is worn to the extent that it does not provide a good seal around the base may not grip the top of the loader sufficiently and could fall off during use. This is a hazard to those below/near the loader. The filter should be replaced so that a good, secure fit is achieved each time the filter is installed on the loader.

continued

Cleaning the Conveying Filter

continued

4 **Install/reinstall the filter.** Firmly press down on the filter to make sure a good seal is provided around the entire perimeter of the filter module. The filter should fit evenly on top of the loader body.

Cleaning the Compressed Air Filter

The compressed air supply to the loader is provided with a moisture trap to prevent troublesome moisture, contained in the air, from touching your material. The filter bowl should be drained regularly to remove this moisture.

To remove moisture:

1 **Open the filter bowl drain.** Turn the knob on the bottom of the filter bowl counterclockwise. Leave the drain open until all moisture has been removed.

2 **Close the filter bowl drain.** Turn the knob clockwise to close the drain.

TIP: Creating a path for this blowout of moisture is usually a good idea, to prevent a stream of moisture-soaked air from contaminating machines or people.

TIP: It is also a good idea to inspect the bowl periodically with the compressed air supply turned off, to clean or replace the filter element if need be or to remove contaminant accumulation, if it is present.

SECTION

6

Troubleshooting

Conveying Problems

WARNING: Disconnect power and air sources. Always disconnect the loader from its main power source and compressed air course before servicing. This prevents the loader from starting during servicing, which could cause personal injury.

Problem	Possible cause	Solution
Low or no material flow.	**Does the filter need to be cleaned?**	Check the filter, if it is clogged with dust or fines, clean the filter. *See Section 5, Cleaning the Conveying Filter.*
	Is the fuse blown?	Replace the fuse. Check for reason.
	Are there kinks in the flex hose?	Check the material flex hose line for loops and "S" curves. Remove any loops and "S" curves in the flex hose. Try to keep the hose as straight as possible.
	Are there holes or cracks in any of the material lines?	Check the material line for holes, cracks or other signs of excessive wear. Replace worn flex hose.
	Are hose connections too loose?	Check the material line hose connections for leaks especially at the venturi connection. Hose clamps should be used.
	Are compressed air adjustments correct?	Check the compressed air adjustments at the filter/regulator to make sure they are properly adjusted for optimum flow. Too much air will prematurely blind the filter; too little air will create clogs.
	Do you have enough material at the source?	Replace/refill the material container or reposition the feed tube.

Conveying Problems

WARNING: Disconnect power and air sources. Always disconnect the loader from its main power source and compressed air course before servicing. This prevents the loader from starting during servicing, which could cause personal injury.

Problem	Possible cause	Solution
Low or no material flow (continued).	**Has material plugged the tubing or flexible hose?**	Remove the conveying line from the venturi and check for pressure. If necessary, uncouple the venturi, remove the blockage and reassemble. Readjust compressed air regulator for proper material flow.
	Is the compressed air tubing connected?	Assure that the venturi (s) are supplied with compressed air via the supplied tubing. *See Section 3, Compressed Air Installation.*
Loader will not cycle.	**Are all electrical connections correct?**	Check to make sure loader control is plugged into a power source, the sensor is plugged into the control and the regrind solenoid (if supplied) is connected to the control. *See Section 3, Connecting the Control.*
Filter clogs frequently.	**Is there too much compressed air flow?**	Adjust the air flow to minimum possible level to prevent excessive dusting and filter clogging.

We're Here to Help

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Department for a nominal fee.

How to Contact Customer Service

To contact Customer Service personnel, call:

From outside the United States, call: 814-437-6861

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department. Standard rates include an on-site hourly rate, with a one-day minimum plus expenses.

Before You Call...

If you do have a problem, please complete the following checklist before calling Conair:

- ❒ Make sure you have all model, serial and parts list numbers for your particular equipment. Service personnel will need this information to assist you.
- ❒ Make sure power is supplied to the equipment.
- ❒ Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- ❒ Check the troubleshooting guide of this manual for a solution.
- ❒ Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.
- ❒ Check that the equipment has been operated as described in this manual.
- ❒ Check accompanying schematic drawings for information on special considerations.

Equipment Guarantee

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

Performance Warranty

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices or improper operation.)
- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.
- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

Warranty Limitations

Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.