

INSTRUCTIONS FOR LV-FX SERIES VENTURI LOADERS



LV-FX Series Venturi Loaders KNOW YOUR WARNING SIGNS AND SYMBOLS!

This instruction manual and our products may use the following signal words Caution and/or Danger symbols to call attention to the degree or level of possible hazard seriousness. Pay attention to them!

- 1. **CAUTION:** A warning to indicate a potentially hazardous situation which, if ignored, may result in personal injury or threat of health. Also used to alert against unsafe practices which could cause property damage or accidents. See labels B & BB.
- 2. **WARNING:** Warns of a potentially hazardous situation which, if not avoided, could result in serious injury. Warning signs are a yellow triangle with a black border and black symbols. See Label A.
- 3. **DANGER:** Indicates an imminently hazardous situation which, if not avoided, may result in serious injury or death. This signal word is limited to the most extreme situations. Always follow the warnings or instructions that accompany the danger label, such as: High Voltage, Acid, Hot Surface, etc, etc, etc. See Labels C & CC.
- 4. **SYMBOL/PICTORIAL:** Conveys a message without words. See labels A & B.
- 5. **SAFETY ALERT SYMBOL** (an exclamation point inside a triangle): Is a general warning and indicates a potential personal injury hazard. Follow instructions and read labels and/or product information before you proceed! See Label A.



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GENERAL DESCRIPTION

Please read this brief manual carefully before installation and using the machine to prevent damage or personal injuries. Venturi Loaders use fast flowing pressurized air to create a vacuum that is used to convey various plastic granules. Air pressure required is around 71 to 90 P.S.I.

FEATURES

- 1) Euro style, compact in size and weight.
- 2) Stainless steel material hopper and base avoids contamination of materials plus easy to clean polished surfaces.
- 3) Filtered exhaust air does not pollute environment.
- 4) Silent operation uses high-pressure air to convey materials, no motor noise.
- 5) Proximity switch sensor mounted next to the sight glass-tube assembly for accurate level sensing of material.
- 6) Compressed air regulator & filter eliminates moisture and maintains steady air pressure.
- 7) Quick installation and simple to operate.

NOTICE:

All service work should be carried out by a person with technical training or corresponding professional experience. The manual contains instructions for both handling and servicing. The Trouble Shooting section contains service instructions intended for service engineers. Other sections contain instructions for the daily operator.

MODIFICATIONS:

WARNING! Do not modify this machine in any way. Modifications of any kind not only void any warranty, but it can cause serious injury or damage to personnel or equipment.

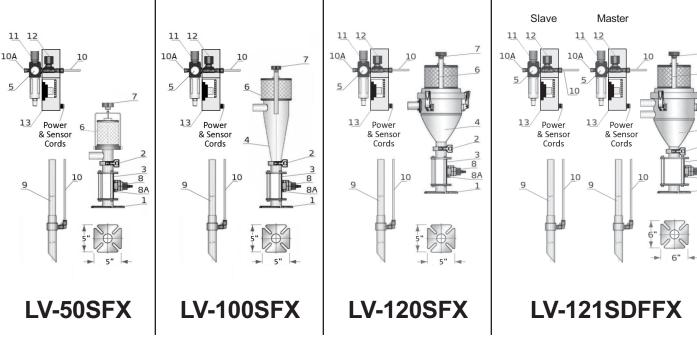




TECHNICAL SPECIFICATIONS

PPE MODEL		Compressed Air Required P.S.I.	Capacity	Max. Conveying Distance (ft)	Conveying Hose I.D. (inches)	Discharge Hole Size	Length of Suction Probe (inches)	Dimensions (inches) H x W x D	Weight (lbs)
LV-50SFX	400	71 - 90	.63	20	1.25"	1.5"	39"	18-5/8" x 4-5/8" x 6-3/8"	7.3
LV-100SFX	400	71 - 90	3.50	20	1.25"	1.5"	39"	30" x 6-1/2" x 6-1/2"	9.2
LV-120SFX	400	71 - 90	3.71	20	1.25"	1.5"	39"	25-13/16" x 9-5/8" x 8-1/4"	10.8
LV-121SDFFX	800	71 - 90	4.10	20	1.25" (2)	2"	39" (2)	26-7/8" x 9-7/8" x 8-1/2"	13.53

Note: Power supply 120V/60/1.



- 1. Base
- 2. Clamp & Gasket
- 3. Sight Glass Assembly
- 4. Hopper, Stainless Steel
- 5. Pressure Gauge
- 6. Air filter
- 7. Clamping Knob, Filter
- 8. Sensor (Proximity Switch)
- 8A. Sensor Bracket

Suction Probe 1-1/4" O.D., Venturi Type 9.

- Air tubing 10mm (.395") poly x 9-1/2 ft. 10. (Air out to probe.)
- 10A. Air Supply (in) to Air Regulator port.
 - 11. Compressed-air filter & regulator (1/4" NPT)
 - 12. Solenoid, Air
 - 13. Control Box with mounting tabs You must disconnect power supply before opening control box!

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FUNCTIONS DESCRIPTION

Working Principle Illustration.

Venturi Loaders use fast flowing pressurized air to create a vacuum that is used to convey various plastic granules. Air pressure required is around 71 - 90 P.S.I.

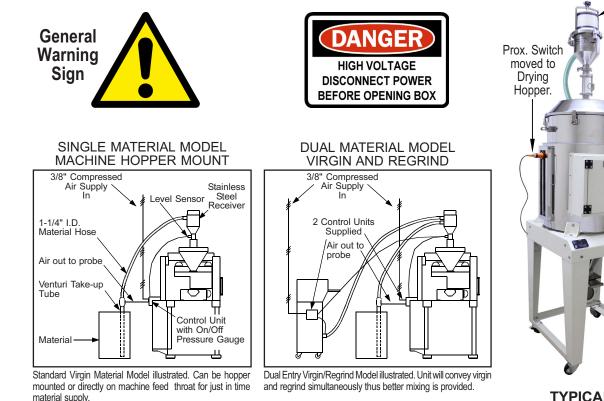
The Venturi Loaders are not designed to convey powders. The maximum particle size to be conveyed is 3/16" pellets. Powders or dust from regrind materials may plug-up your air filter within hours.

SAFETY PRECAUTIONS

Transportation of the machine.

TRANSPORTATION:

- 1) LV-FX Series are packed in a cardboard box.
- 2) Do not invert the machine and avoid collision with other objects during transportation to prevent improper functioning.
- 3) The structure of the machine is well-balanced, although it should also be handled with care when lifting the machine for fear of dropping it.



PPE Honeycomb Desiccant Dryer TYPICAL APPLICATION

Model LV-120SFX Venturi Loader

Model DH-120USDG

Stainless Steel

Drying Hopper



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SAFETY PRECAUTIONS

Storage of the machine.

STORAGE:

- LV-FX Series should be stored indoors with temperature kept from 41°F to 104°F and humidity 1) below 80% if possible.
- Disconnect all power and turn off main switch and control switch. 2)
- 3) Keep the whole machine, especially the electrical components away from water.
- 4) Plastic film should be used to protect the machine from dust and moisture when not in use.

WORKING ENVIRONMENT:

- The machine should be operated indoors in a dry environment with max. temperature 113°F and 1) humidity no more than 80%.
- 2) A clearance of at least 3 feet surrounding the equipment is required during operation. Keep this equipment at least 6 feet away from flammable sources.
- 3) Avoid vibration and magnetic disturbance at the operation area.

DO NOT USE THE MACHINE:

- If it is has a damaged power cord. 1)
- 2) On a wet floor or when it is exposed to moisture, to avoid electrical shock.
- If it has been dropped or damaged until it is checked or fixed by a qualified serviceman. 3)

FIRE HAZARD:

- 1) In case of fire, CO₂ dry powder fire extinguisher should be applied.
- 2) Attention: No need for regular inspection because all of the electrical parts in the control unit are fixed tightly!

INSTALLATION

The Venturi Loader can be installed directly on the plastic material hopper. CAUTION: Be sure to fasten the loader in place as they are top heavy when conveying material plus the extra weight of the vacuum hose. Connect the venturi poly tubing 10mm x 13' to the suction probe. Then connect the other side to the "OUT" side of the control box. Expose 1" of the grounding wire on the 1-1/4" I.D. material hose on each end. Fasten one end to the suction probe and the other end to the inlet of the venturi body with the clamps that were included. Failure to connect the ground wire can cause excessive static buildup and can result in possible static shock to personnel or damage the unit control circuit board. Connect a 10mm tube air supply to the "IN" side of the control box air regulator. It is preset at the factory. To reset the air pressure you must lift the pressure control knob reset the pressure and lock the knob by pushing it down until it clicks. For dual feed model follow procedures as listed above except you have 2 hoses and suction probes plus 2 control boxes. One control box is the master (No. 1 supplies power) and the second is the slave (No. 2). Plug the slave box into the master to energize the slave box. Both control boxes have power switches so the slave box (regrind) can be shut down if necessary.



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All PPE Venturi Loaders are supplied with a vacuum hose that contains a ground wire to help control static electricity for user safety. We also recommend you install an extra static ground wire on your LV-FX Series Venturi Loader unit. The ground wire should be run **INSIDE** your feed tube and connect the metal probe to the hopper loader frame. This will help to dissipate the static charge generated by some plastics as they are conveyed up the tube. You can use a standard 18 gauge electrical wire, strip the ends about 1-1/2" and pinch them between the plastic feed hose and the metal tubes that it mounts over, then clamp it securely with the supplied hose clamps. Do not use plastic suction probes!!



Many variables in plastic material types, sizes, velocity, ambient temperatures, dryness, etc. etc. can or will generate static electricity seeking a release to ground. If you suspect this condition, we strongly suggest you add an additional ground wire from the control box circuit board ground to your molding machine. Excessive static could damage your control circuit board. If the loader is mounted on a plastic drum or plastic material bin, (ungrounded) you must ground the loader to a proper ground source.

INSTALLATION SPACE

- During installation of the Venturi Loader, keep at least 3 feet installation space around the Venturi Loader as shown by the picture.
- Do not install the Venturi Loader in a position crowded with other objects. This could cause erratic operation or maintenance and repair problems.
- 3) Keep away from chemicals or flammable materials.
- 4) Discharge hole is 1-1/2" or 2". See specification chart.

CARE & MAINTENANCE

Filter Cleaning or Maintenance (Very Important!)

The filter is located on the material hopper. Clean or change the filter periodically or when loader's feeding capacity decreases. A blocked or dirty filter greatly reduces material conveying capacity and will cause erratic operation!

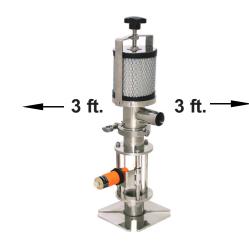
Clean steps:

Unscrew the star knob, remove the filter. Clean the dust on the filter or install a new filter to ensure you get maximum material conveying. **Keep your filter clean!** In order to avoid air-blocking and to get smooth conveying, please periodically clean the dust on the filter (about once every week). Also every day for dusty regrind materials.



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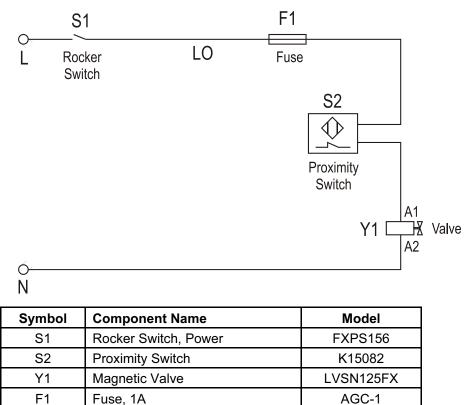




TROUBLE SHOOTING

Condition	Analysis			
	The main switch and control switch doesn't open or the above two aren't connected properly.			
Looking for material for a long time, or Venturi Loader doesn't run.	The proximity sensor isn't connected properly.			
or ventur Loader doesn't run.	The signal wire is loose or broken.			
	Loss of air pressure. Also check your air filter.			
The hopper is full, but the Venturi	The proximity sensor doesn't release.			
Loader still runs.	The signal wire is short circuited.			
	The incoming material storage tank is empty.			
After several times of loading the	The pipe has an air leak.			
material hopper is still empty.	The filter is blocked. Clean or change your air filter.			
	The air pressure is too low.			

ELECTRIC DIAGRAM





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