

# **VL-1201**

Integrated Venturi Loader

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Version: V2.2 (English)





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## 1. General Description



Please read this manual carefully before installation and using of the machine to prevent damage or personal injuries.

Venturi loaders use fast flowing pressurised air to create a vacuum that is used to convey various plastic granules. Air pressure is around 5-6 kgf / cm<sup>2</sup>.



VL-120I

### Features:

- 1) Euro style, compact in size and lightweight.
- 2) Stainless steel material hopper and base ensure no contamination of materials.
- 3) Filtered exhaust air does not pollute environment.
- 4) Silent operation uses high-pressure air to convey materials.
- 5) Capacitive sensor mounted onto glass-tube for accurate level sensing of material.
- 6) Compressed air filter and regulator to eliminate moisture and maintain steady air pressure.
- 7) Quick installation and easy operation with polished surface.
- 8) Easy access to material hopper for convenience when cleaning.
- 9) Built under license agreement from Autoload Inc, USA.

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. Chapter 7, which contains service instructions intended for service engineers. Other chapters contain instructions for the daily operator.

Any modifications of the machine must be approved by SHINI in order to avoid personal injury and damage to machine. We shall not be liable for any damage caused by unauthorized change of the machine.

Our company provides excellent after-sales service. Should you have any problem during using the machine, please contact the company or the local vendor.

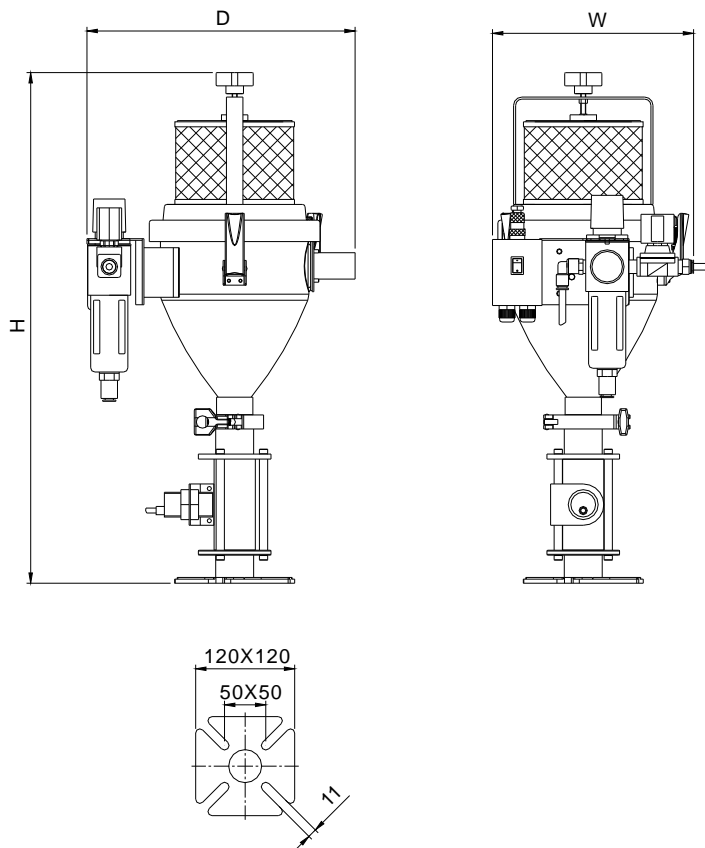
Budzar Industries, Inc./ Shini USA

Tel: (440) 918-0505

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## 2. Technical Specifications

### 2.1 Out Dimensions of VL-120I



### 2.2 Specification List VL-120I

Model	Conveying Capacity (kg / hr)	Material Hopper (L)	Max. Conveying Distance (m)	Conveying Hose (inch)	Length of Suction Pipe (mm)	Dimensions (mm) (H×W×D)	Weight (kg)
VL-120I	180	2.8	6	1.25"	900	630×250×350	7

Note: 1) For hopper inside polished ones, plus "P" at model behind.

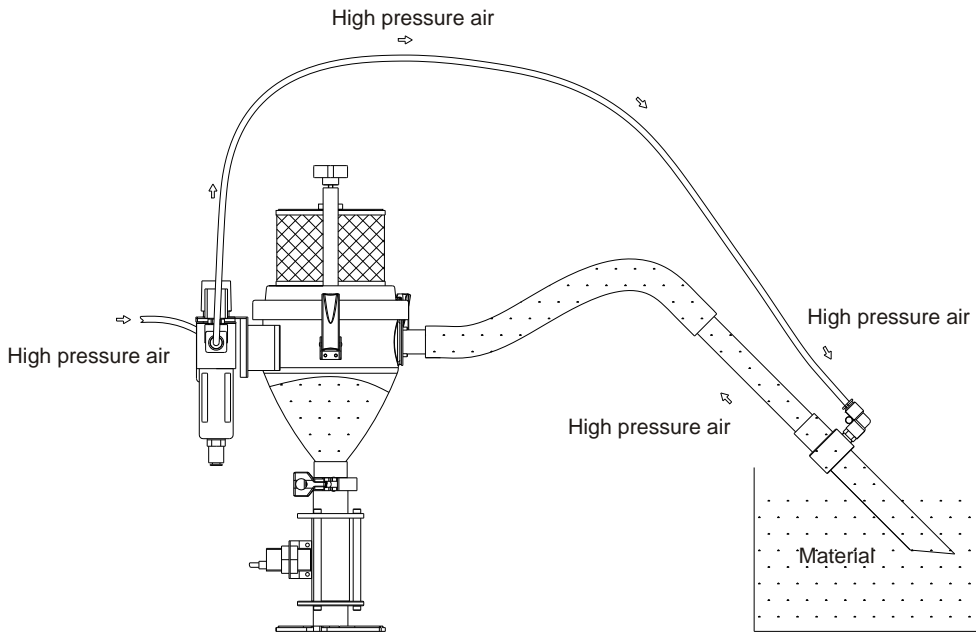
2) "I" 表不主體與控制部分採用一體式;

3) Note: Power supply 1 Φ, 115 / 230V, 50 / 60Hz.

## 3. Functions Description

### 3.1 Working Principle Illustration

Venturi loaders use fast flowing pressurised air to create a vacuum that is used to convey various plastic granules. Air pressure is around 5-6 kgf / cm<sup>2</sup>.



Integrated Venturi Loader takes advantage of high fluidity of high pressure air to generate vacuum to convey plastic granule in the material storage tank. Air pressure is 5-6 kgf/cm<sup>2</sup>.



# 4. Safety Regulations

## Transportation and storage of the machine

### Transportation

- 1) VL-120I series are packed cardboard box.
- 2) Do not rotate 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 falling down.
- 4) The machine and its attached parts can be kept at a temperature from  $-25^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  for long distance transportation and for a short distance, it can be transported with temperature under  $+70^{\circ}\text{C}$ .

### Storage

- 1) VL-120I series should be stored indoors with temperature kept from  $5^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  and humidity below 80%.
- 2) Disconnect all power supply and turn off main switch and control switch.
- 3) Keep the whole machine, especially the electrical components away from water to avoid potential troubles caused by the water.
- 4) Plastic film should be used to protect the machine from dust and rains.

### Working environment

The machine should be operated:

- 1) Indoors in a dry environment with max. temperature  $+45^{\circ}\text{C}$  and humidity no more than 80%.

Do not use the machine:

- 1) If it is with a damaged cord.
- 2) On a wet floor or when it is exposed to rain to avoid electrical shock.
- 3) If it has been dropped or damaged until it is checked or fixed by a qualified serviceman.
- 4) This equipment works normally in the environment with altitude within 3000m.
- 5) At least a clearance of 1m surrounding the equipment is required during

operation. Keep this equipment away from flammable sources at least two meters.

6) Avoid vibration, magnetic disturbance at the operation area.

### Rejected parts disposal

When the equipment has run out its life time and can not be used any more, unplug the power supply and dispose of it properly according to local code.

### Fire hazard



In case of fire, CO<sub>2</sub> dry powder fire extinguisher should be applied.



Attention !

No need for regular inspection because all the electrical parts in the control unit are fixed tightly !

## 5. Installation

The feeding hopper can be installed directly on the plastic injector. Connect the venturi pipe device. The venturi pipe connect the suction box of the dryer or the storage bins. Then connect the other point to the hopper, use for steel wire hose and seal the touch-point. Then connect the power supply.

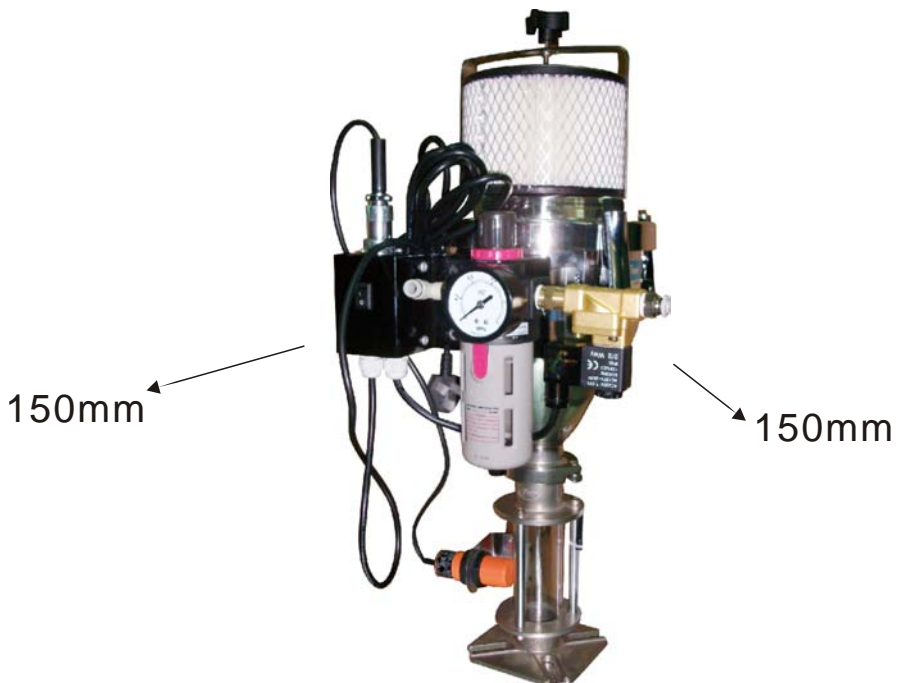
### 5.1 Installation Space

During installation of the machine, keep at least 150mm installation space around the machine as shown by the picture.

Do not install the machine in a position crowded with other objects. This would cause inconvenience to operation, maintenance and repair.

Do not sit on the machine.

Keep away flammable and explosive goods.



## 6. Clean & Maintenance

### 6.1 Filter Clean or Maintenance

The filter is located in the material hopper. Clean the filter periodically or when its feeding capacity decreases

Clean steps:

Unscrew the star knob, remove the filter. Clean the dust on the filter, make sure to get smooth conveying.

### 6.2 Maintenance of the Filtering and Pressure Adjusting Valve

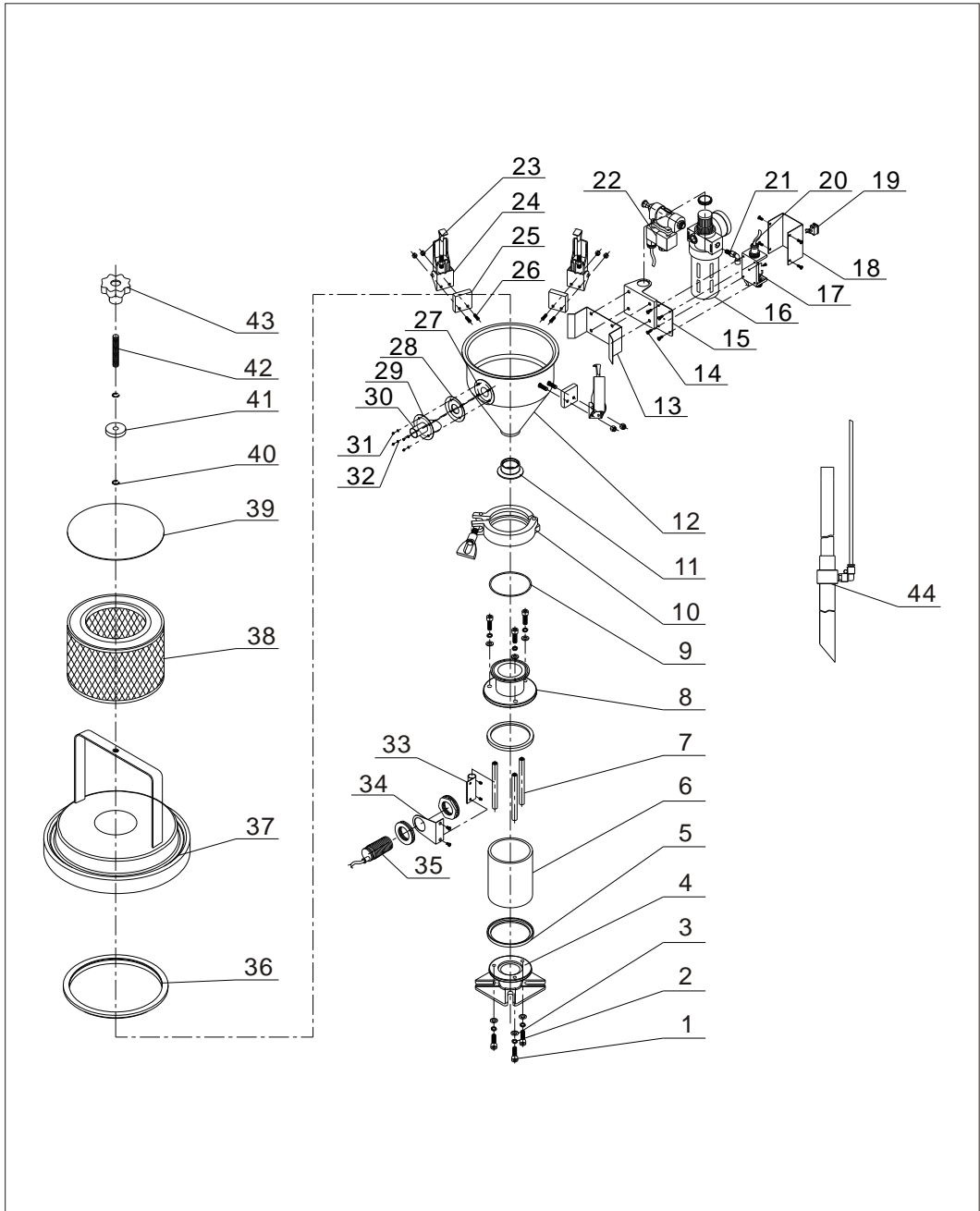
To guarantee the filtering efficiency of filtering pressure adjusting valve, please drain the water out of filtering pressure adjusting valve periodically (when water level is close 2m below filter core).

## 7. Trouble Shooting

Fault	Analysis
When shortage have been last long, but suction blower don't run.	The main switch and control switch don't open or the above two don't connect well.
	The sensor don't connect well .
	The signal wire is break.
	The motor winding is burnt out.
The suction blower still run, if the hopper is full.	The sensor is always connecting.
	The signal wire is short circuit.
After several times of loading the material hopper still empty or the material shortage alarm occur.	The storage tank is empty.
	The pipe is air leak.
	The filter is block.
	The pressure air is too low.

## 8. Assembly Drawing and Parts List

### 8.1 VI-120I Assembly Drawing

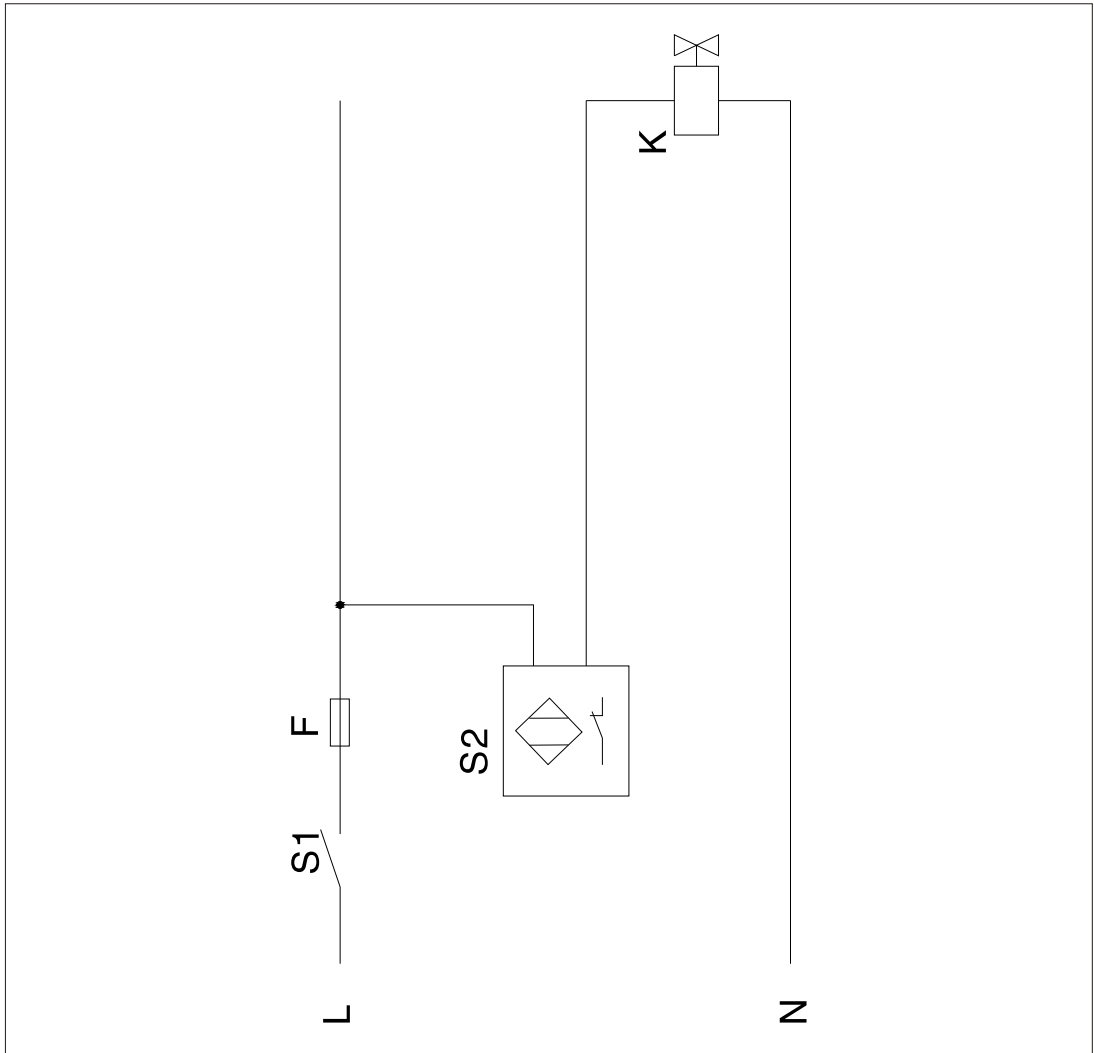


## 8.2 Parts List VL-120I

No	Name	P/N	No	Name	P/N
1	Inner hexagonal screw column	F1215000	23	Screw nut	F1904000
2	Spring gasket	F1804001	24	Snap hook	A1200024
3	Flat gasket	F1707000	25	Snap hook pressure block	A2200602
4	Glass tube lower flange	A1136001	26	Screw	F1614002
5	Glass pipe packing	A2108000	27	Screw	F1604100
6	Glass tube	A3108001	28	Material inlet pipe fastener	A2203000
7	Flange connection shaft	A2210110	29	Material inlet pipe fastener	-
8	Glass pipe upper flange	M1605036	30	Material inlet pipe	-
9	Base fastener	A2204002	31	Screw	F1904000
10	Food degree connector	G3216002	32	Flat gasket	F1703001
11	Hopper flange	M1605035	33	Sensor fixing base	-
12	Material storage tank	-	34	Sensor fixing base	-
13	Fixing plate 1	-	35	Sensor fixing	A3020000
14	Cross socket head cap screw	F1405001	36	Hopper fastener	A2103004
15	Fixing plate	-	37	Hopper lid	-
16	Voltage regulator	H0003006	38	Filter	N3204008
17	Electrical control box	-	39	Filter fixation sheet	-
18	Electrical control box cover	-	40	Flexible block ring	-
19	Microswitch	E1307000	41	Pressure block	-
20	Metal joint	E5209010	42	Screw shaft	-
21	Jiffy quick connector	D1502109	43	Star nut	P1201040
22	Solenoid valve	T3108001	44	Suction pipe components	-

\*Indicates latent wearing parts; \*\*Indicates latent wearing parts and it's suggested to back them up.

## 9. Electric Diagram



No.	Symbol	Component name	Model	Part Number
1	S1	Component name	19 x 12MM	E1307000
2	S2	Microswitch	IFM KI0203	A3020000
3	K	Magnetic valve	SMC 021-001C	T3108000
4	F	Fuse	2A	E3202003



## Local Warranty Statement

- 1) Local warranty applies to the country of purchase only. Once the product is transited out of the country of purchase, this warranty is invalidated.
- 2) The warranty is only applicable to the original purchaser and in the country of purchase.
- 3) The warranty covers parts and labour only; and excludes freight and on-site call-out charges.
- 4) Your SHINI product is guaranteed against manufacturing defects for a period of twelve (12) months from the date of purchase locally unless stated otherwise.
- 5) The warranty shall immediately cease and become void if the product is found to have been modified or repaired by an unauthorized person.
- 6) The warranty is subjected to the following limitations and exclusions:
  - (a) Malfunctions or damages resulting from not complying with the recommended manner as outlined in our operation manual in relation with the application, installation, operation and maintenance.
  - (b) Defects from using wrong electrical supply, misuse or damage by negligence and abuse.
  - (c) Malfunctions or damages resulting from natural disaster, fire, civil unrest and / or accidents.
  - (d) Wear parts and accessories.
- 7) If your SHINI product is not the same place of purchase, you can still send the product to your local SHINI's branch or distributor for servicing at your full costs according to the individual country service policy.
- 8) If there is no SHINI's branch or distributor in your country, although obviously there is no warranty covered by SHINI, you may direct contact SHINI requesting for the supply of replacement parts at your full costs.
- 9) All the electricity installation, connection and maintenance should be carried out by the specialists or contact , SHINI or its local agents

10. The warranty is deemed valid only if the followings are completely filled in:

Purchaser's name and address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Your supplier's name and address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Product model: \_\_\_\_\_ Serial number: \_\_\_\_\_

Invoice Number: \_\_\_\_\_ Date of purchase: \_\_\_\_\_

Please send all queries and comments to:

**Budzar Industries, Inc/ Shini USA**

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# RECOMMENDED SPARE PARTS LIST

## VENTURI LOADER

MODEL#: VL-120i

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PRICE</u>
AIR REGULATOR	300-040-0530	\$69.00
ELECTRICAL CONTROL BOX	500-080-0006	\$109.00
CONTROL SWITCH	640-040-0016	\$16.00
JIFFY QUICK CONNECTOR	280-017-0071	\$9.00
SOLENOID	290-010-0604	\$64.00
FLAT GASKET	300-999-0408	\$8.00
LEVEL SWITCH	610-040-0010	\$209.00
HOPPER FASTENER	210-300-0363	\$8.00
FILTER	340-100-0516	\$49.00
GLASS PIPE PACKING	220-030-0231	\$12.00
GLASS TUBE	220-030-0232	\$19.00

**NOTE: PRICES ARE VALID FOR ONE (1) YEAR FROM DATE OF DELIVERY.  
TO PURCHASE SPARE PARTS FOR YOUR UNIT, PLEASE CONTACT  
MICHELE VICTOR AT 440-918-0505 OR MVICTOR@BUDZAR.COM**

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