“Meet reliable INTRISE, and you could see your future”

INTRISE responds rapidly to consumers’ changing needs with precise and systematic design, using drawing systems of 3D computer graphics.

**Greeting**

INTRISE CO., LTD is the leading exporter and manufacturer of nozzle type vacuum and gas flushing packaging machine, AIRZERO VACUUM PACKAGING MACHINE.

AIRZERO VACUUM PACKAGING MACHINE is a new concept of packaging machine with many merits, compared to chamber type packaging machine. AIRZERO VACUUM PACKAGING MACHINE suck air directly from the inside of packing envelope by using a nozzle stroke. So, the work is completed very quickly.

In addition to that, with the digital control box and vacuum sensor, AIRZERO VACUUM PACKAGING MACHINE has more special merits such as Packing process control both by vacuum degree and time, Separate control of 1st and 2nd vacuum degree, LCD / LED Indicator showing the operation and condition of machine, etc. So, AIRZERO VACUUM PACKAGING MACHINE ‘s excellent features overwhelm other company ‘s packaging machinery.

Complying with the increasing importance of packaging for commercial value, AIRZERO VACUUM PACKAGING MACHINE is successfully expanding the market in packaging industry field through a unique combination of skilled personnel, technical quality control, quick delivery, competitive price, and a variety of ready and tailor made vacuum and gas flushing packaging machinery available to meet your production line ‘s need, backed up by aggressive and continuous R & D.

Please go over AIRZERO VACUUM PACKAGING MACHINE ‘s various vacuum and gas flushing packaging solutions at the website,

www.airzero.co.kr / www.Intrise.co.kr

and feel free to contact us if there is any way that AIRZERO VACUUM PACKAGING MACHINE can be of assistance concerning packaging of your products.
Nozzle Type Vacuum & Gas Flushing Packaging Machine

The basic structure of AIRZERO vacuum packaging machine

- Vacuum using pneumatic method
  - Its mechanical power to operate a machine is so high that the sealing bar can be extended longer, compared to a vacuum packing machine using a electrical motor.
  - When the nozzle moves forward, the last aspect is controlled to go down for safety.
- The safety device being equipped
  - When foreign materials such as fingers are inserted into sealing bars, the upper sealing bar automatically moves up.
- ISO 9001 & CE certified

What’s the Nozzle Type Vacuum and Gas Flushing Packaging Machine?

It is a new concept of vacuum packing machine using a nozzle to suck air directly out of the bag so that it overcomes many shortcomings of the chamber type vacuum packing machine. (Refer to Chamber type vs Nozzle type.)

- Free adjustment for vacuum degree and gas
  - Vacuum packing at low vacuum possible (Shop at lowest)
  - Gas flushing and substitution for the purpose of packing (Impossible with chamber type vacuum packing)
- Neat and tidy packing shape
  - In vacuum packing, no product damage caused by an instant discrepancy in pressure
- Various options
  - Various vacuum pumps can be applied according to products (pneumatic pump, pistons pump and oil pump)
- A method to suck air out of the bag
  - Fast work speed
  - Little restricted from the size of products (possible to vacuum and gas flushing packing up to 200liter with AZ-Series)
  - Vacuum packing for contents with high temperature (Impossible with chamber type vacuum packing)
- Multi-functions
  - Sealing, vacuum packing, vacuum and gas flushing.

Functions and ways to use AZ-Series control-box

- VAC/TIME: This button is to select whether you control vacuum procedure by time or by vacuum degree, (T and V appear at the lower-left side of LCD)
  - V: Vacuum Degree (Koil) of vacuuming, T: machine is operated by the preset vacuum degree. If you select 40, the vacuum works until the vacuum degree of the inside of vacuum bag approaches to 40 KPa and then the nozzle moves backward after that. Therefore, it's not related to vacuuming time. (VAC/TIME) 0-0.999Koil, (0.01Koil) 
  - T: Time, when you select 00, the vacuum works for 2.5 second and the nozzle moves backward after that.
- MODE: This button decides the type of work, VACUUM, GAS1, GAS2, AND SEALING are changed one by one for each press of MODE button. 0, 1, 2, 3 and 4 mean respectively VACUUM, GAS1, GAS2 AND SEALING which appear at the upper-right side of LCD.
  - 0: Seal 1: Vacuum 2: Gas 3: Seal 4: Vacuum
- TIME: This button decides the work, of which time or vacuum degree is adjusted. (Each pressing of TIME button) the time is changed saw-tooth from 000VACUUM, VACUUM, GAS1, GAS2 and SEALING to COOLING. Then, for each of them, you can adjust time or vacuum degree by UP and DOWN button.
- UP/DOWN: Increase / Decrease time / vacuum degree for each selected process,
- STOP: This is the Stop button. If you press this button, the machine comes back to the original state, so, the nozzle moves backward and the sealing bar moves up.
- Button gas flushing and gas substitution are indicated on the basic function
- Control box Detachable bases for easy cable-manual
- The best quality of safety is attached for error machine applying
- In case of using high temp. upper and lower guide hot series are attachable
Examples of AZ-Series use
As the importance of packaging as a factor for product quality becomes bigger, the range of applying vacuum and gas flushing packaging widens to a variety of fields.

- **Semiconductor and industrial products**
  Prevention of oxidation, moisture and static electricity, particle elimination and reduction in logistics cost.

### Applied items

#### Customers

- **Semiconductor and water**

- **Vacuum IC and electronic components**
  - Trennn, Samsung Electronics, Samsung Electronics Co., Ltd, LG Electronics, Samsung SDI, Etc.

- **Optical tools**

- **Machinery**
  - DF Tech, GCK Engineering, Etc.

- **Mobile phone**
  - Korea Air, LG Telecommunications, LG Mobile, Sanyung Electro, Sanyung Electronic Communications, Etc.

- **Research equipment**
  - Institute for Advanced Research, Korea Electronics Technology Institute, Korea Atomic Energy Research Institute, KARI, Etc.

- **Medical field**
  - SKT Corporation, Genzyme, Fresenius-Kabi, Nongbros, Kang-Medical, Taumos, G.L. Bahn, Department of Medical Science, Seoul National University, Etc.

- **Silicon**
  - KMA Silicon, Silicon, Industrial Silicon, Etc.

- **Clothes and others**

- **Foods**
  - Shelf-life extension, and freshness and flavor maintenance.

### Applied items

#### Customers

- **Dried fish and meat**
  - Donghai Georium, Deoksul Fishing, Etc.

- **Vegetables**

- **Grains**
  - Hyeonmin, Kangui, Yeoljeong, Gyeonggi Kangui, New Agricultural Technology Center, Etc.

- **Fish and meat**
  - Seosan, DS Company, Wolmi, Dogok Seok, Etc.

- **Hot products**
  - Haedong Foods, Nokwada Foods, Etc.

- **Others**

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**Gas Flushing Function**

- **Nitrogen Flushing Packaging**
  - Oxygen substitution, moisture removal, damage prevention on contents from outside impacts, packaging of vacuum packaging looking with adjusting gas amount (usage: snacks, grains, coffee, etc).

- **Nitrogen and Carbon Dioxide Flushing Packaging**
  - Carbon dioxide playing a role of preventing microbes from growing (usage: fishery, meat, salted fish).

- **Nitrogen, Carbon Dioxide and Oxygen Flushing Packaging**
  - Preserving freshness and nutrients by holding breath and photosynthesis in check as much as possible (usage: vegetables and fruits).

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**Desktop nozzle type vacuum packaging machine (AZ-450E)**

- Suitable for a limited space

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**Stand-attached nozzle type vacuum packaging machine (AZ-450ES)**

- Suitable for the case of requiring working stand below

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**Performance Chart**

<table>
<thead>
<tr>
<th>Model name</th>
<th>Sealing length</th>
<th>Sealing width</th>
<th>Packing capacity</th>
<th>Vacuum Pump</th>
<th>Required Power</th>
<th>Max. InstantaneousCurrent consumed power</th>
<th>Required Pneumatic pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ-2000</td>
<td>500 mm</td>
<td>10 mm</td>
<td>1.5 kg/min</td>
<td>2.5 kW</td>
<td>1.5 kW</td>
<td>12 V / 100 Hz</td>
<td>0.25 kg/min</td>
</tr>
<tr>
<td>AZ-2000</td>
<td>600 mm</td>
<td>10 mm</td>
<td>1.5 kg/min</td>
<td>2.5 kW</td>
<td>1.5 kW</td>
<td>12 V / 100 Hz</td>
<td>0.25 kg/min</td>
</tr>
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<td>AZ-2000</td>
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</tr>
</tbody>
</table>

*If you want other specification, please refer to our sales dept.*
Nozzle Type Vacuum & Gas Flushing Packaging Machine

Vertical nozzle type vacuum packaging machine (AZV-600)

Suitable for packaging bulky or heavy products, Inclination and height adjustable (Equipped with an UP/DOWN electric power drive motor)

- Examples
  - Shinetsu Silicon: Silicon undulated solution
  - Hwang-Young: Pickled fish and huge fish such as a shark
  - Mitsubishi: Cement

- Options
  - Work table, above and below heating method (vacuum pump, conveyor and the whole machine are made with stainless steel)
  - Possible to order and manufacture over 1200mm of sealing bar

<table>
<thead>
<tr>
<th>Model</th>
<th>Sealing length</th>
<th>Sealing width</th>
<th>Packing capacity</th>
<th>Vacuum Pump</th>
<th>Required Power</th>
<th>Max. Instantly consumed power</th>
<th>Required Pneumatic pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZV-600</td>
<td>800mm</td>
<td>5mm</td>
<td>1</td>
<td>Dryer pumps, oilless pump: power to 18 kw/150kg/hr</td>
<td>2.2 kW</td>
<td>3.2 kW</td>
<td>2 – 7 kg/cm²</td>
</tr>
<tr>
<td>AZV-800</td>
<td>800mm</td>
<td>5mm</td>
<td>1</td>
<td>Dryer pumps, oilless pump: power to 18 kw/150kg/hr</td>
<td>2.8 kW</td>
<td>3.5 kW</td>
<td>2 – 7 kg/cm²</td>
</tr>
<tr>
<td>AZV-1100</td>
<td>1100mm</td>
<td>5mm</td>
<td>1</td>
<td>Dryer pumps, oilless pump: power to 18 kw/150kg/hr</td>
<td>2.8 kW</td>
<td>3.5 kW</td>
<td>2 – 7 kg/cm²</td>
</tr>
</tbody>
</table>

If you want other specification, please refer to our sales dept.
Nozzle Type Vacuum & Gas Flushing Packaging Machine

Method to understand AZ-Series Model name

According to the below procedure, Buyer can select the most suitable one for their production site.

AZ -  -  -  -  -

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Upper and lower double style</th>
<th>Tabletop style</th>
<th>Stand style</th>
<th>Ejector pump</th>
<th>Oilless pump</th>
<th>Oil pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
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</tbody>
</table>

- Standard
- Height adjustable style
- Start style
- Vertical style

Vacuum pump

Its capacity to take air away is measured when it is not attached to the body.

<table>
<thead>
<tr>
<th>EJECTOR PUMP</th>
<th>OILLESS PUMP</th>
<th>OIL PUMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name</td>
<td>Maximum vacuum capacity (L/min)</td>
<td>Displacement speed (L/min)</td>
</tr>
<tr>
<td>VTX-20</td>
<td>124</td>
<td>30</td>
</tr>
<tr>
<td>VTX-50</td>
<td>124</td>
<td>30</td>
</tr>
</tbody>
</table>

*Compressor is impossible to be built-in.

Chamber type vs Nozzle type

- Chamber type
  - This type is suitable to pack several units of goods by just one process when the size of goods is very small compared to the size of chamber.
- Nozzle type
  1. Nozzle type adopts the method to vacuum-pack directly the inside of envelope by using a nozzle stroke. So, the work is very speedy compared to chamber type, except when the size of packed goods is very small so that you pack several units of goods by just one process by using a chamber type.
  2. Nozzle type is much less restricted to the size of packed goods compared to chamber type, thanks to the method to vacuum-pack directly the inside of envelope by using a nozzle stroke.
  3. Nozzle type has a vacuum sensor in control box. So, nozzle type is very suitable for when user want to vacuum-pack the packed goods at same vacuum degree regardless the size of packed goods. Chamber type is impossible to do this.
  4. Nozzle type can control the volume of gas inserted in the envelope. That is, a user can flush heavily an envelope to swell up or flush just lightly. But, in the case of chamber type, gas cannot but be inserted just tightly into an envelope.
  5. In the case of clean room vacuum packaging, only Nozzle type is possible because nozzle type uses ejector-vacuum pump which pushes out very little dust compare to chamber type which uses oil-vacuum pump generating much dust.
  6. In the case of packing for any goods which includes liquid, chamber type is not suitable because chamber type uses oil-vacuum pump which becomes out of order when liquid leaks into it. But, that is possible for Nozzle type using ejector-vacuum pump which is no problem with liquid. (But, even in the case of nozzle type, any inflow of much liquid to the inside of machine body may bring about a trouble.)
  7. Nozzle type is suitable when the packed goods is sensitive against any external shock. Chamber type is not suitable because it makes vacuum using momentary atmospheric pressure so that it gives external shock to packed goods.
  8. Especially, AZA-450-ES (Angle controllable type) is suitable for grains or liquid, for it can incline down the angle of machine body to 45°.

Tailor-made AIRZERO vacuum sealer

SUNTHI SILICON
LG CHEMICAL
SAMSUNG
ARMY OF KOREA