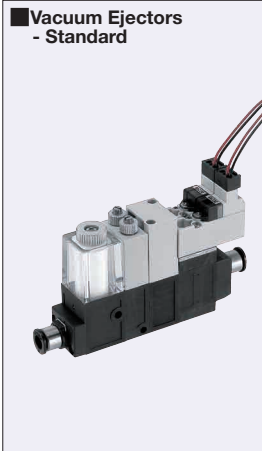


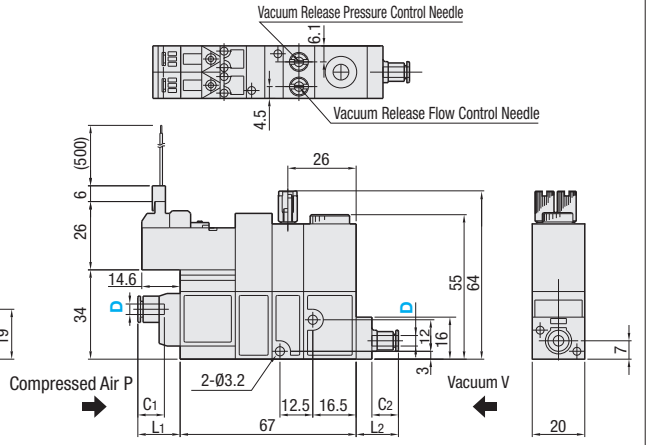
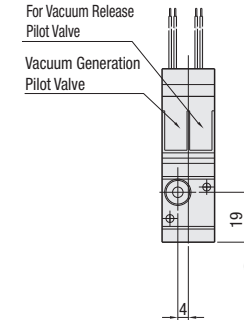
Vacuum Ejectors

Standard Type



Vacuum Ejectors - Standard

VJHB



| Part Number | Nozzle Dia. Nominal | Nozzle Dia. (mm) | L1 | L2 | C1 | C2 | Ultimate Vacuum (-kPa) | Suction Flow (ℓ/min (ANR)) | Flow Consumption (ℓ/min (ANR)) | Mass (g) | Unit Price 1 ~ 9 pc (s.) | Volume Discount Rate 10~20 |
|-------------|---------------------|------------------|------|------|------|------|------------------------|----------------------------|--------------------------------|----------|--------------------------|----------------------------|
| VJHB | 4 | 5 | 14.6 | 14.3 | 10.9 | 10.9 | 90.4 | 7 | 11.5 | 164.5 | | |
| | | 7 | | | | | 93.1 | 13 | 23 | | | |
| | 6 | 5 | 17.1 | 17.2 | 11.7 | 11.7 | 90.4 | 7 | 11.5 | | | |
| | | 7 | | | | | 93.1 | 13 | 23 | | | |

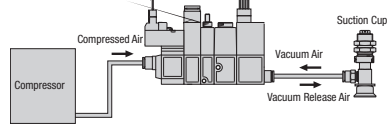
Material List

| Name | Material |
|--------------------------------------|---|
| Body Resin | Glass Fiber Filled PBT (Polybutylene Terephthalate) |
| Seal Rubber | Nitrile Rubber |
| Main Valve | Aluminum Alloy |
| Joint Portion Metal | Brass + Electroless Nickel Plating |
| Vacuum Filter Cover | PCT (Polycarbonate) |
| Filter Cover Holder | Aluminum Alloy |
| Vacuum Generation Nozzle | Brass + Electroless Nickel Plating |
| Vacuum Generation Diffuser | Brass + Electroless Nickel Plating |
| Release Air Flow Rate Control Needle | Brass + Electroless Nickel Plating |

Specifications

| | |
|---------------------------------------|---|
| Applicable Fluid | Air |
| Operating Temperature Range | 5 ~ 50°C |
| Operating Pressure Range | 0.3~0.7MPa |
| Rated Supply Pressure | 0.5MPa |
| Release Air Flow Rate | 0~50ℓ / min(ANR) (When supply pressure is 0.5 MPa) |
| Structure of Release Air Relief Valve | Elastic Seal, Poppet Valve |
| Relief Pressure Selecting Range | 0.005~0.05MPa |

Plumbing Example

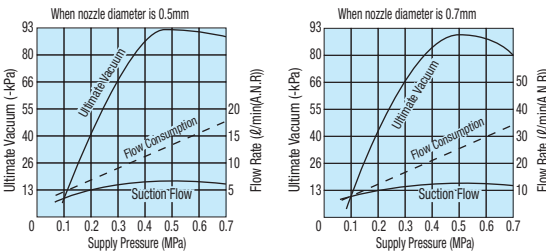


Features

- Vacuum generator with built-in electromagnetic valve enables compact wiring.
- Controls over the pressure of vacuum release air (air used for release vacuum condition) to prevent a workpiece from being blown off.
- Provides the Relief function (used to relieve extra pressure) on vacuum release circuit to shorten the vacuum release time.

Properties

-Supply Pressure - Ultimate Vacuum, Suction Flow, Flow Consumption

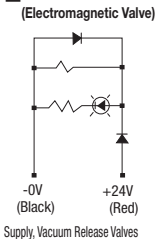


- The characteristic supply pressure above is for vacuum generation.
- Valve can cause abnormal sounds at the supply pressure of 0.4 ~ 0.45MPa, i.e. the supply pressure value just prior to the peak value of Ultimate Vacuum. This abnormal sound indicates unstable properties, and the noise will be large. It may affect the sensor and other objects and cause troubles. Please reset supply pressure.
[Ex.1] The original pressure is 0.5MPa. However, when the vacuum generator is operated, pressure supply declines down to 0.43MPa due to pressure drop and abnormal noise occurs.
→Reset the supply pressure to 0.5MPa when vacuum generator is operating.
- When selecting plumbing and equipment, use the triple value of the Nozzle Dia. Sectional Area as guide of Effective Sectional Area. If adequate supply air flow rate is not retained, sufficient vacuum properties cannot be achieved. (Abnormal sound may be generated even within the Set Pressure range. Suction Flow, Ultimate Vacuum, etc. may be left insufficient.)
[Ex. 2] Though the pressure is 0.5MPa when vacuum generator is operating, abnormal sound occurs.
→Insufficient supply air flow rate (Air flow is squeezed by pipe resistance in the vacuum generator, not obtaining supply air flow rate that meets the characteristics).
→Select plumbing and equipment to ensure the necessary effective sectional area.
[Ex. 3] When nozzle diameter is 0.5mm, the sectional area is 0.25x0.25xπx3=0.59mm²
→Select plumbing and equipment to retain the effective sectional area to 0.6mm² or more.

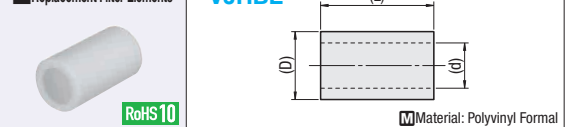
Electromagnetic Valve Specifications

| Item | Electromagnetic Valve for Vacuum Generation | Electromagnetic Valve for Vacuum Release |
|--------------------------|---|--|
| Operation Method | Direct Operation | |
| Valve Structure | Elastic Seal, Poppet Valve | |
| Rated Voltage | DC24V | |
| Allowable Voltage Range | DC24V±10% | |
| Surge Protection Circuit | Diode | |
| Power Consumption | 1.2W (with LED) | |
| Manual Operation | Push Type - Non-Locking | |
| Operation Indicator | Coil Excitation Operation: Red LED On | |
| Connection Method | Red: DC24V Black: COM | |
| Operation Method | Air Pressure Operation with Pilot Valve | |
| Valve Structure | Elastic Seal, Poppet Valve | |
| Pressure Resistance | 1.05MPa | |
| Valve Type | NC (Normally Closed) | |
| Lubrication | Not Required | |
| Effective Sectional Area | Air Supply Port Size: Ø4:3.5mm ² Ø6:5mm ² | 1mm ² |

Electrical Circuit (Electromagnetic Valve)



Replacement Filter Elements



| Part Number | (D) | (d) | (L) | Filtration Level | Filter Surface Area | Unit Price 1 ~ 9 pc (s.) | Volume Discount Rate 10~20 |
|-------------|-----|-----|-----|------------------|---------------------|--------------------------|----------------------------|
| VJHBE | 12 | 8 | 30 | 10μm | 1130mm ² | | |

VJHBE is replacement element specific for vacuum ejector.

