

Quick-Fittig Type Ejector Vacuum Generator

Features

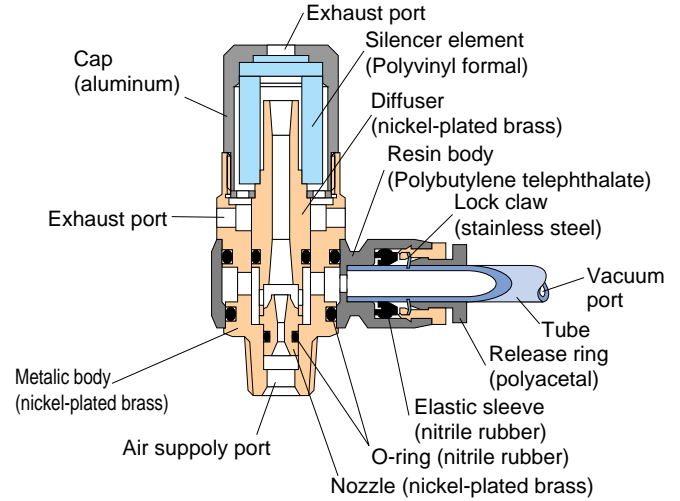
- The Vacuum Generator, creating vacuum by use of compressed air, can be used in combination with a Vacuum Pad to convey materials.
- Vacuum Generator comes in a variety of performances and types to meet your applications.

Specification

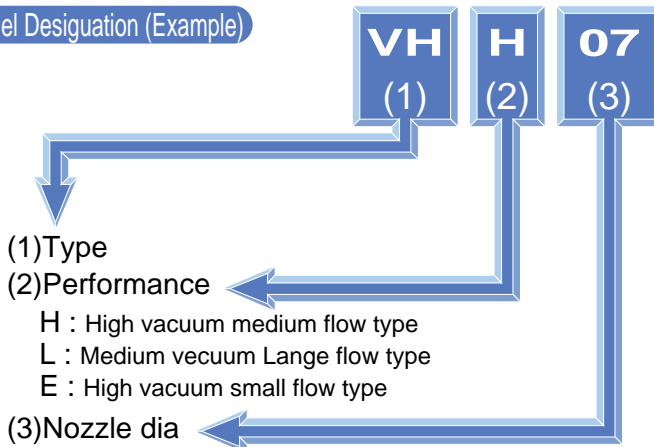
| Fluid admitted | Air | |
|---------------------------|-------------------|------------------|
| Service pressure range | 21.3~100psi | 0.15 ~ 0.7MPa |
| Rated supply pressure | 71.1psi (49.8psi) | 0.5MPa (0.35MPa) |
| Service temperature range | 32 ~ 140°F | 0 ~ 60°C |

VB-VUSM Vaccume switch specification

| | |
|---------------------------|-----------------------------------|
| Pressure sensing mode | Diaphragm micro switch |
| Fluid admitted | Air |
| Service temperature range | 32~140°F (0 ~ 60°C) (No freezing) |
| Rated power | 3A 250V |
| Pressure setting range | -5.9~-19.7in. Hg (-20~-67KPa) |
| Accuracy | ±1.6in. Hg (±5KPa) |
| Differential response | 2.0~4.7in. Hg (7~16KPa) |
| Set value at shipment | -15.7in. Hg (-53KPa) |



Model Designation (Example)



| Code | Size | H Type vacuum level suction flow | L Type vacuum level suction flow | E Type vacuum level suction flow |
|------|-------|---|--|--|
| 05 | 0.5mm | -26.8in.Hg(-90KPa) 0.25SCFM(7Nℓ/min) | -19.7in.Hg(-67KPa) 0.42SCFM(12Nℓ/min) | — |
| 07 | 0.7mm | -27.2~27.6in.Hg(-90~-93KPa) 0.44~0.46SCFM(12.5~13Nℓ/min) | -19.7in.Hg(-67KPa) 0.78~0.92SCFM(22~26Nℓ/min) | -26.8~-27.2in.Hg(-92KPa) 0.35~0.37SCFM(10~10.5Nℓ/min) |
| 10 | 1.0mm | -27.6in.Hg(-93KPa) 0.99SCFM(28Nℓ/min) | -19.7in.Hg(-67KPa) 1.48SCFM(42Nℓ/min) | -27.2in.Hg(-92KPa) 0.74SCFM(21Nℓ/min) |
| 12 | 1.2mm | -27.6in.Hg(-93KPa) 1.34SCFM(38Nℓ/min) | — | -27.2in.Hg(-92KPa) 0.95SCFM(27Nℓ/min) |
| 15 | 1.5mm | -27.6in.Hg(-93KPa) 2.22SCFM(63Nℓ/min) | -19.7in.Hg(-67KPa) 3.35SCFM(95Nℓ/min) | -27.2in.Hg(-92KPa) 1.48SCFM(42Nℓ/min) |
| 20 | 2.0mm | -27.6in.Hg(-93KPa) 3.88SCFM(110Nℓ/min) | -19.7in.Hg(-67KPa) 6.35SCFM(180Nℓ/min) | -27.2in.Hg(-92KPa) 2.96SCFM(84Nℓ/min) |

*Air supply pressure is 0.5MPa (71.1psi) for H and L types or 0.35MPa (49.8psi) for E type.

(4) Vacuum Port size

■ Tube dia

| Tube dia | mm size | | | | | in. size | | | | |
|----------|---------|----|----|-----|-----|----------|------|-------|------|------|
| Code | 4 | 6 | 8 | 10 | 12 | 5/32 | 1/4 | 5/16 | 3/8 | 1/2 |
| Size | φ4 | φ6 | φ8 | φ10 | φ12 | φ5/32 | φ1/4 | φ5/16 | φ3/8 | φ1/2 |

■ Thread size

| Thread size | Metric thread(mm) | | | Taper pipe thread | | | Unified fine thread | | | American standard Taper pipe thread | | |
|-------------|-------------------|--------|--|-------------------|------|------|---------------------|--------|--------|-------------------------------------|--|--|
| Code | M5 | M6 | | 01 | 02 | 03 | U10 | N1 | N2 | | | |
| Size | M5×0.8 | M6×0.8 | | R1/8 | R1/4 | R3/8 | 10-32UNF | NPT1/8 | NPT1/4 | | | |

(5) Air supply port size

■ Tube dia

| Tube dia | mm size | | | | | in. size | | | | |
|----------|---------|----|----|-----|-----|----------|------|-------|------|------|
| Code | 4 | 6 | 8 | 10 | 12 | 5/32 | 1/4 | 5/16 | 3/8 | 1/2 |
| Size(mm) | φ4 | φ6 | φ8 | φ10 | φ12 | φ5/32 | φ1/4 | φ5/16 | φ3/8 | φ1/2 |

■ Thread size

| Thread size | Metric thread(mm) | | | Taper pipe thread | | | Unified fine thread | | | American standard Taper pipe thread | | |
|-------------|-------------------|--------|--|-------------------|------|------|---------------------|--------|--------|-------------------------------------|--|--|
| Code | M5 | M6 | | 01 | 02 | 03 | U10 | N1 | N2 | | | |
| Size | M5×0.8 | M6×0.8 | | R1/8 | R1/4 | R3/8 | 10-32UNF | NPT1/8 | NPT1/4 | | | |

(6) Additional feature

- J : Concentrated Exhaust type (VH, VS, VU)
- A : Disassembly type (VU)

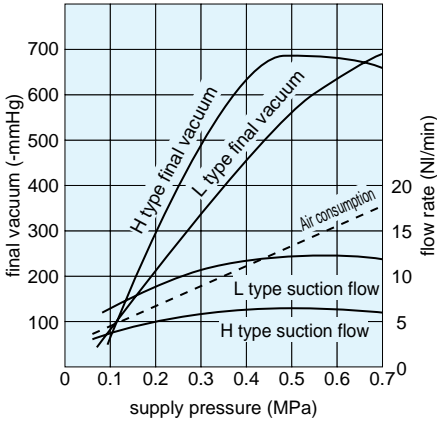
(7) Hexagon flat-to-flat specification

- U: Hexagon flat-to-flat inch spec. (NPT)
- No code: Hexagon flat-to-flat mm spec.

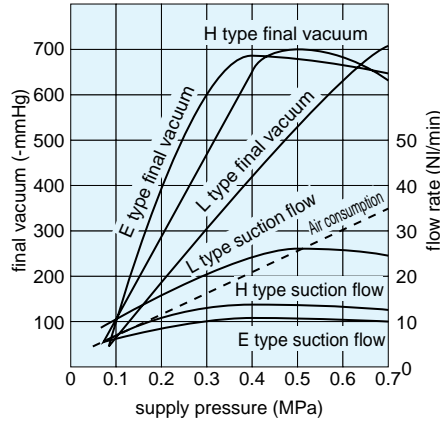
Characteristics

Pressure supply-Final Vacuum, Vacuum flow, Air consumption

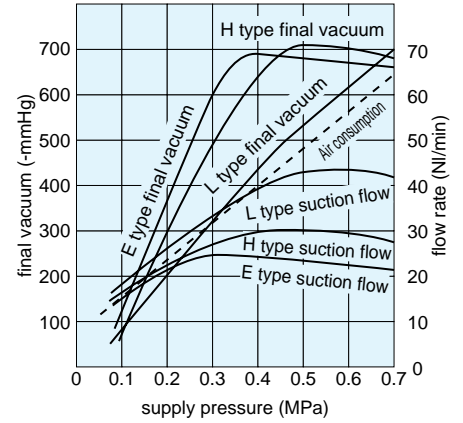
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VSH 05 VSL 05
VBH 05 VBL 05
VGH 05 VGL 05



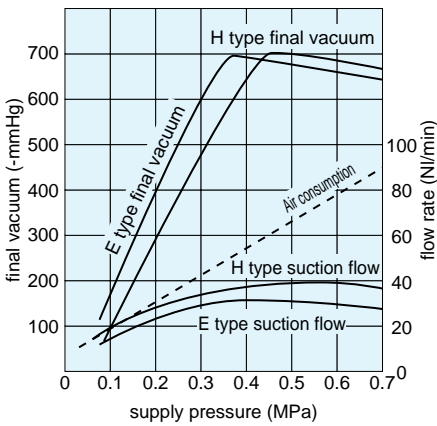
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VSH 07 VSL 07 VSE 07
VBH 07 VBL 07 VBE 07
VGH 07 VGL 07 VGE 07



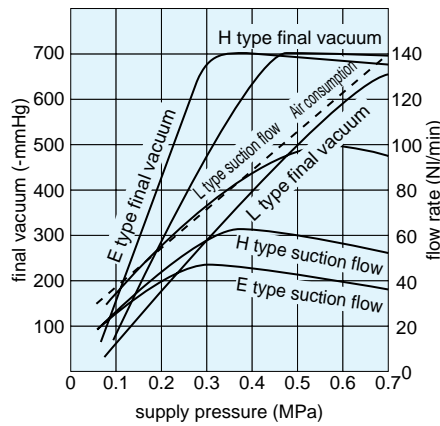
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VSH 10 VSL 10 VSE 10
VBH 10 VBL 10 VBE 10
VGH 10 VGL 10



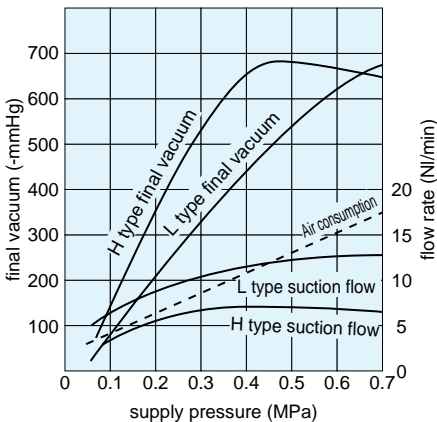
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VBH 12 VBL 12



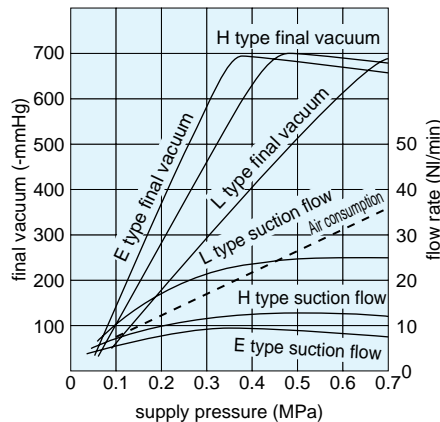
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VSH 15 VSL 15 VSE 15



VUH 05 VUL 05
VMH 05 VML 05
VCH 05 VCL 05



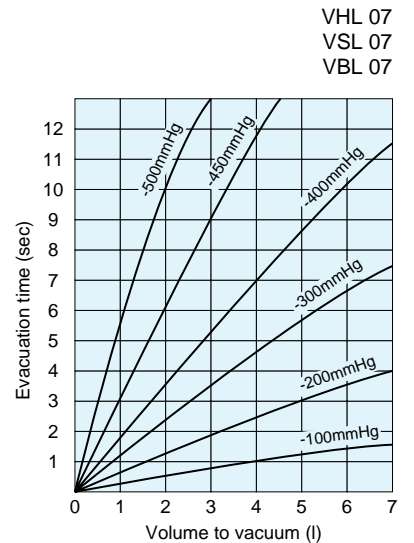
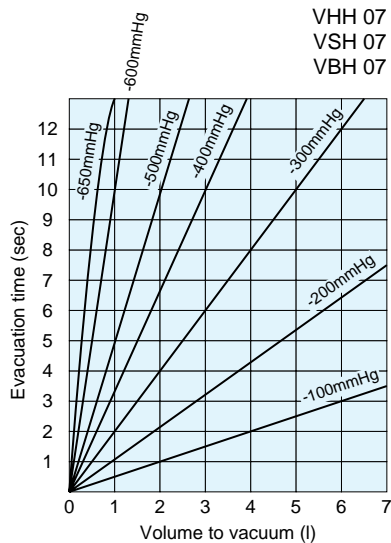
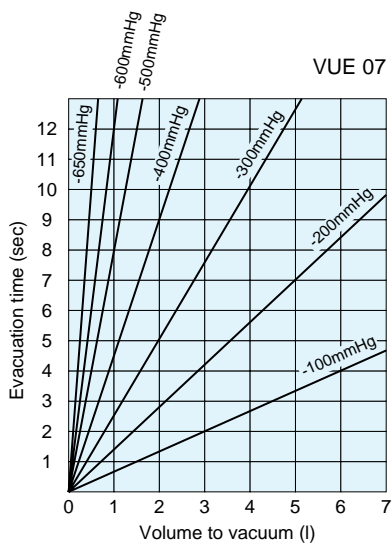
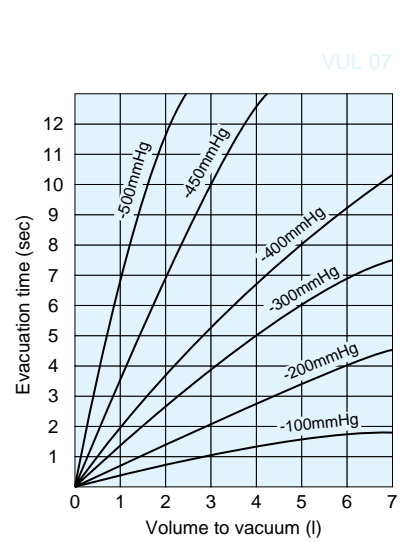
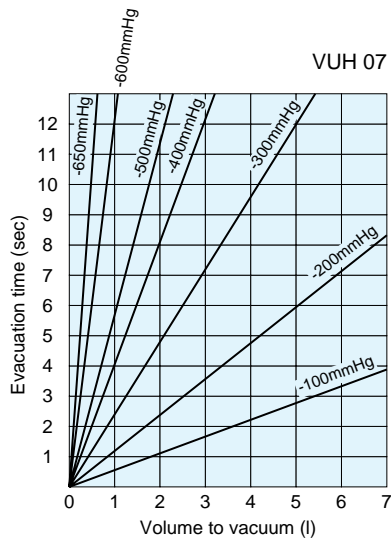
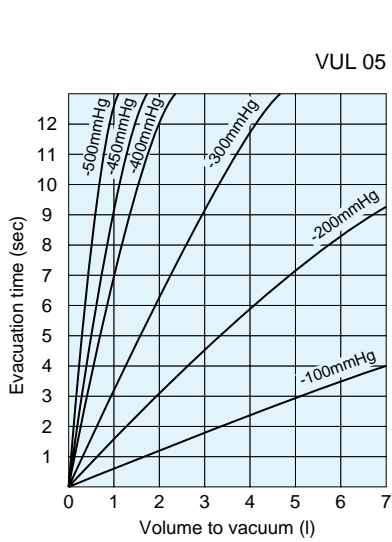
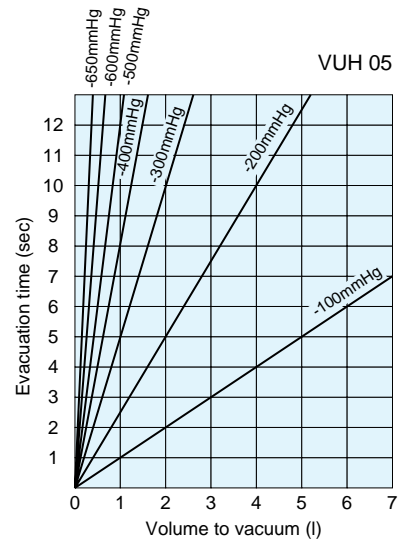
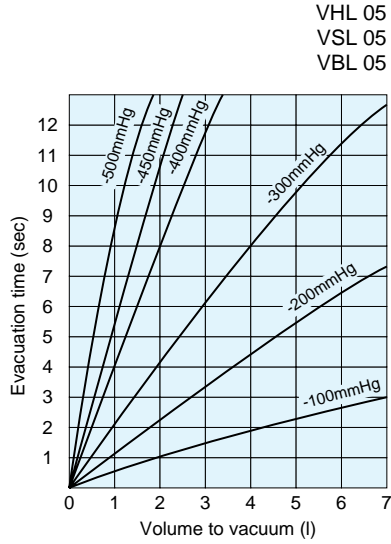
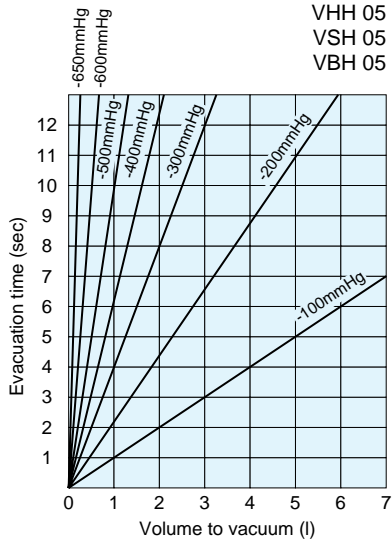
VUH 07 VUL 07 VUE 07



Charactoristics

Evacuation time [Supply pressure H type : 0.5MPa(72.5psi), L type : 0.5MPa(72.5psi),E type : 0.3-0.5MPa(43.5~72.5psi)]

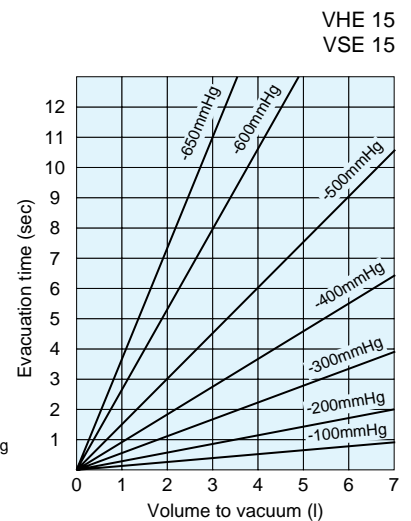
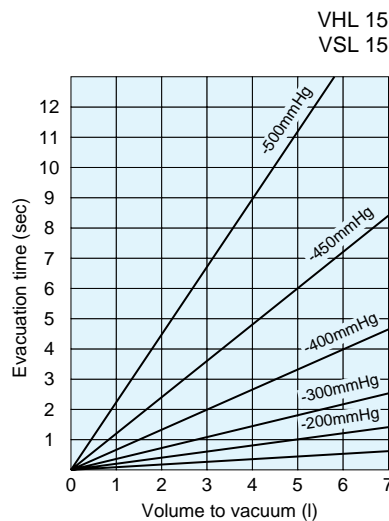
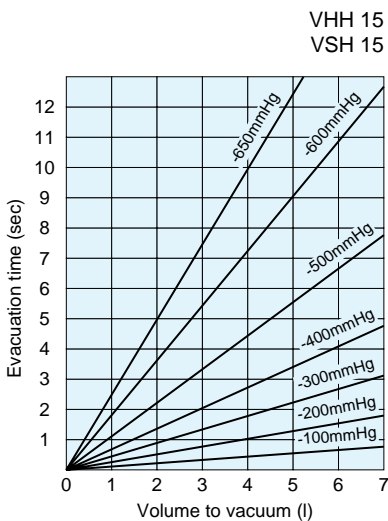
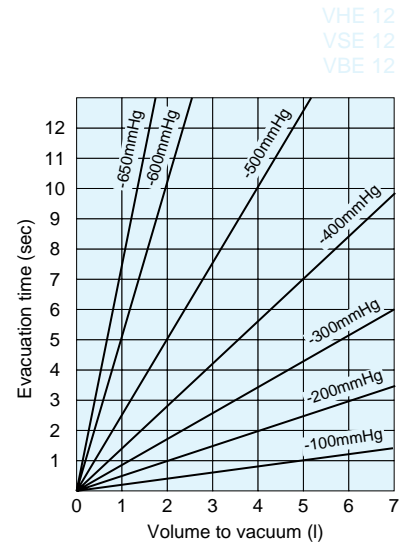
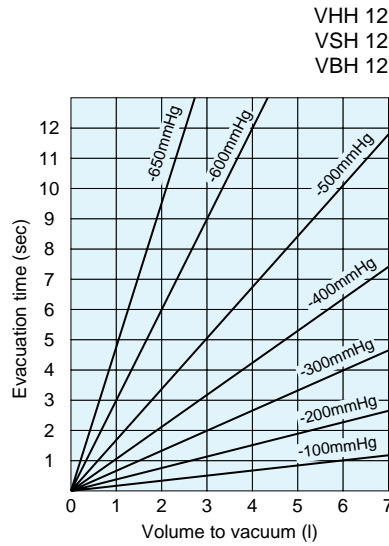
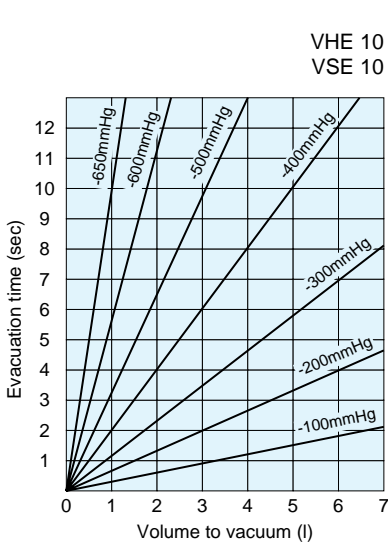
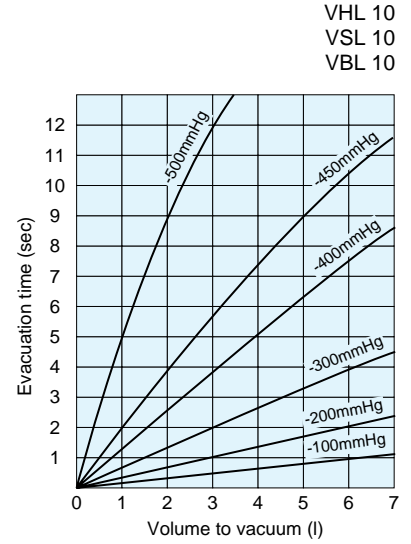
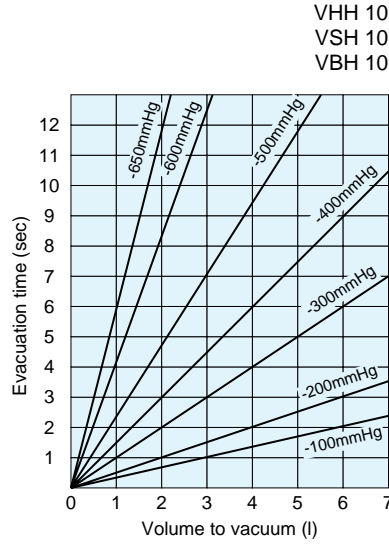
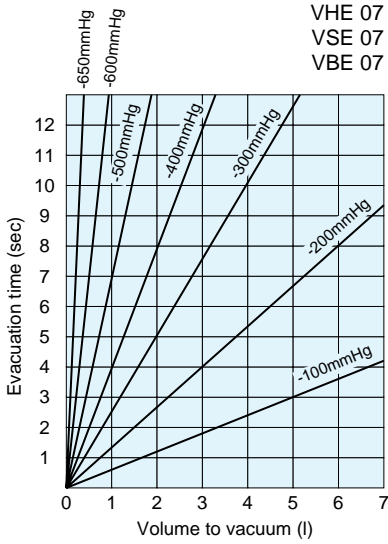
* These figures depend on the layout of vacuum system.



Characteristics

Evacuation time [Supply pressure H type : 0.5MPa(72.5psi), L type : 0.5MPa(72.5psi), E type : 0.3-0.5MPa(43.5~72.5psi)]

* These figures depend on the layout of vacuum system.



How to select

■ Three different types of vacuum generators, H type (high vacuum), L type (large vacuum flow) and E type (low consumption-high vacuum), are provided to meet your requirements.

● H type - E type

When your primary concern is to get a high vacuum level; where 0.5MPa(72.5psi) of compressed air can be secured H type is suitable, and where it cannot be secured or air consumption needs to be lowered, E type is preferable.

● H type - L type

Where high vacuum is required, H type is recommended. When the vacuum needs to be adjusted, L type can be used to set the vacuum at a desired level by adjusting the pressure of the supply air with a regulator. Vacuum level of L type is almost in proportion to the force of supply air.

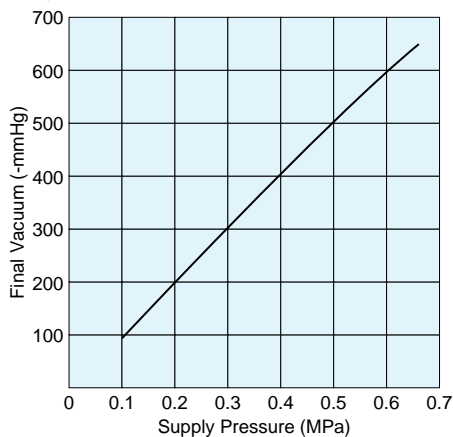
During the pressure range of 0.2~0.6MPa(29~87psi), L type is designed to set the vacuum level at; -27KPa(7.9in. Hg) at 0.2MPa(29psi), -40KPa(11.8in. Hg) at 0.3MPa(43.5psi), -54KPa(15.7in. Hg) at 0.4MPa(58psi), -67KPa(19.7in. Hg) at 0.5MPa(72.5psi), -80KPa(23.6in. Hg) at 0.6MPa(87psi). Although there is some differential between -5% to +15% against the setting level, it is still possible to set the vacuum level by adjusting the supply air pressure.

● When the vacuum cups do not hold the surface of works perfectly:

When the works cannot be held tight by vacuum cups (due to air leak), how to decide which type, H type or L type, should be used depends on the vacuum level in the vacuum system.

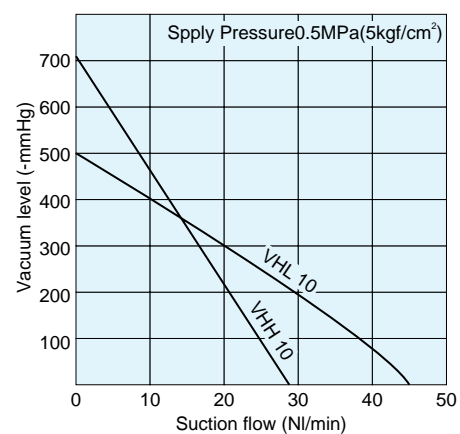
According to the vacuum level-vacuum flow table at the right, when the vacuum level in vacuum system is over -54KPa(15.7in. Hg), H type is preferable. When under -40KPa(11.8in. Hg), L type is better.

L Type Final Vacuum Characteristics



(Fig.1)

VHH 10, VHL 10 Vacuum level-Suction flow



(Fig.2)

Remarks

● Valve

When solenoid valves or other valves are used in the system, ones that can secure adequate air flow should be used. (Valves' effective sectional areas should be three times bigger than the nozzle's cross section).

● Vacuum piping


Because the piping resistivity of vacuum system is bigger than you expect, we'd recommend you to make the vacuum piping as short as possible and to use a tube whose dia. is bigger than the general one. Especially, when vacuum switches are used in the system, too much piping resistance might cause wrong operations. It might also cause a reduction of vacuum flow.

● Piping for air supply side

It is necessary to pay attention to the piping on the air supply side. Piping should be done in order to secure the rated pressure at the point of the inlet port of vacuum generator.

 Detailed Safety Instructions

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on pages 23~24 and "Common Safety Instructions for Vacuum" on pages 379~380 and "Common Safety Instructions for Mechanical Vacuum Switches" on page 381.

 Caution

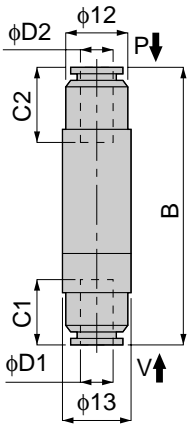
1. Note that with the VC type (M5 only) piping can not be changed after installation of the body.

Vacuum Series Vacuum Generator

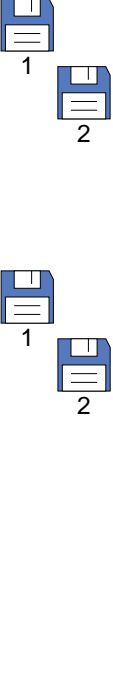
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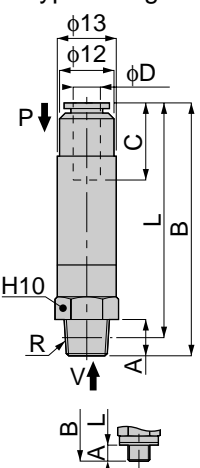
Pipe Type Union Straight



| Model | Tube dia. φD1 | Tube dia. φD2 | B | C1 | C2 | Nozzle dia. (mm) | Final vacuum (-KPa) | Suction flow (Nℓ/min) | Air consumption (Nℓ/min) | Mass (g) |
|------------|---------------|---------------|------|------|------|------------------|---------------------|-----------------------|--------------------------|----------|
| VUH 05-44A | 4 | 4 | 49 | 11 | 11 | 0.5 | 91 | 7 | 11.5 | 18.5 |
| VUH 05-46A | 4 | 6 | 50 | 11 | 11.5 | | | | | 1 |
| VUH 05-64A | | 4 | | | 11.5 | | | | | |
| VUH 05-66A | 6 | 6 | 50.5 | 11.5 | 0.7 | 92 | 12.5 (12) | 23 | 17.5 | |
| VUH 07-44A | 4 | 4 | 55.5 | 11 | | | | | 11 | 3 |
| VUH 07-46A | 4 | 6 | 56.5 | 11 | | | | | 11.5 | |
| VUH 07-64A | | 6 | | | 4 | 11.5 | 11 | 2 | | |
| VUH 07-66A | 6 | 6 | 57 | 11.5 | 11.5 | 0.5 | 67 | | 12 | 11.5 |
| VUL 05-44A | 4 | 4 | 49 | 11 | 11 | | | 1 | | |
| VUL 05-46A | 4 | 6 | 50 | 11 | 11.5 | | | | | |
| VUL 05-64A | | 6 | | | 4 | 11.5 | 11 | 1 | | |
| VUL 05-66A | 6 | 6 | 50.5 | 11.5 | 11.5 | 0.7 | 67 | | 20 | 23 |
| VUL 07-44A | 4 | 4 | 55.5 | 11 | 11 | | | 3 | | |
| VUL 07-46A | 4 | 6 | 56.5 | 11 | 11.5 | | | | | |
| VUL 07-64A | | 6 | | | 4 | 11.5 | 11 | 2 | | |
| VUL 07-66A | 6 | 6 | 57 | 11.5 | 11.5 | 0.7 | 91 | | 10 | 17 |
| VUE 07-44A | 4 | 4 | 55.5 | 11 | 11 | | | 3 | | |
| VUE 07-46A | 4 | 6 | 56.5 | 11 | 11.5 | | | | | |
| VUE 07-64A | | 6 | | | 4 | 11.5 | 11 | 2 | | |
| VUE 07-66A | 6 | 6 | 57 | 11.5 | 11.5 | 0.7 | 91 | | 10 | 17 |

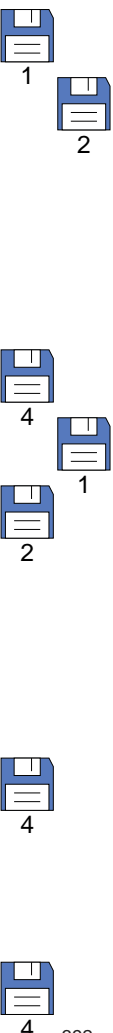


Pipe Type Straight



Metric Thread Type

| Model | Tube dia. φD | R | A | B | L | C | *1 (mm) | *2 (-KPa) | *3 (Nℓ/min) | *4 (Nℓ/min) | Mass (g) |
|-------------|--------------|--------|---|------|------|------|---------|-----------|-------------|-------------|----------|
| VUH 05-M54A | 4 | M5×0.8 | 3 | 50 | 47 | 11 | 0.5 | 91 | 7 | 11.5 | 17.5 |
| VUH 05-M56A | 6 | | | 50.5 | 47.5 | 11.5 | | | | | 1 |
| VUH 05-M64A | 4 | M6×1 | 4 | 51 | 47 | 11.5 | | | | | |
| VUH 05-M66A | 6 | | | 51 | 47 | 11.5 | 0.7 | 92 | 12.5 (12) | 23 | 16.5 |
| VUH 05-014A | 4 | R1/8 | 8 | 54 | 50 | 11 | | | | | 4 |
| VUH 05-016A | 6 | | | 54.5 | 50.5 | 11.5 | | | | | |
| VUH 07-M54A | 4 | M5×0.8 | 3 | 56.5 | 53.5 | 11 | 0.7 | 92 | 12.5 (12) | 23 | 19 |
| VUH 07-M56A | 6 | | | 57 | 54 | 11.5 | | | | | 3 |
| VUH 07-M64A | 4 | M6×1 | 4 | 57.5 | 53 | 11 | | | | | |
| VUH 07-M66A | 6 | | | 57.5 | 53.5 | 11.5 | 0.7 | 92 | 12.5 (12) | 23 | 18.5 |
| VUH 07-014A | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | | | | | 4 |
| VUH 07-016A | 6 | | | 61 | 57 | 11.5 | | | | | |
| VUL 05-M54A | 4 | M5×0.8 | 3 | 50 | 47 | 11 | 0.5 | 67 | 12 | 11.5 | 17.5 |
| VUL 05-M56A | 6 | | | 50.5 | 47.5 | 11.5 | | | | | 1 |
| VUL 05-M64A | 4 | M6×1 | 4 | 51 | 47 | 11.5 | | | | | |
| VUL 05-M66A | 6 | | | 51 | 47 | 11.5 | 0.7 | 67 | 20 | 23 | 17 |
| VUL 05-014A | 4 | R1/8 | 8 | 54 | 50 | 11 | | | | | 4 |
| VUL 05-016A | 6 | | | 54.5 | 50.5 | 11.5 | | | | | |
| VUL 07-M54A | 4 | M5×0.8 | 3 | 56.5 | 53.5 | 11 | 0.7 | 67 | 20 | 23 | 19 |
| VUL 07-M56A | 6 | | | 57 | 54 | 11.5 | | | | | 3 |
| VUL 07-M64A | 4 | M6×1 | 4 | 57.5 | 53 | 11 | | | | | |
| VUL 07-M66A | 6 | | | 57.5 | 53.5 | 11.5 | 0.7 | 92 | 12.5 (12) | 23 | 18 |
| VUL 07-014A | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | | | | | 4 |
| VUL 07-016A | 6 | | | 61 | 57 | 11.5 | | | | | |
| VUE 07-M54A | 4 | M5×0.8 | 3 | 56.5 | 53.5 | 11 | 0.7 | 91 | 10 | 17 | 19 |
| VUE 07-M56A | 6 | | | 57 | 54 | 11.5 | | | | | 3 |
| VUE 07-M64A | 4 | M6×1 | 4 | 57.5 | 53 | 11 | | | | | |
| VUE 07-M66A | 6 | | | 57.5 | 53.5 | 11.5 | 0.7 | 91 | 10 | 17 | 18.5 |
| VUE 07-014A | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | | | | | 4 |
| VUE 07-016A | 6 | | | 61 | 57 | 11.5 | | | | | |



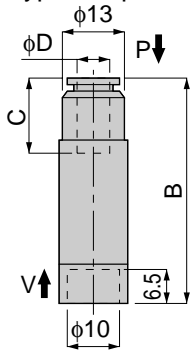
*1 Nozzle dia. *2 Final vacuum *3 Suction flow *4 Air consumption.

Vacuum Series Vacuum Generator



VU

Pipe Type Adapter

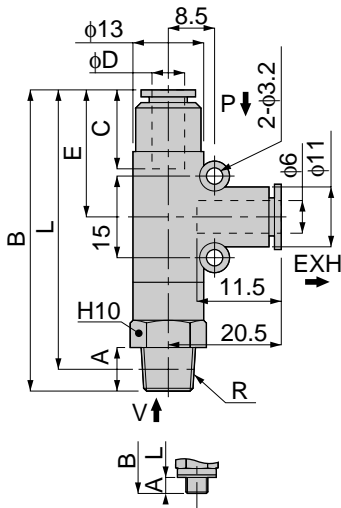


| Model | Tube dia. φD | B | C | Nozzle dia. (mm) | Final vacuum (-KPa) | Suction flow (Nℓ/min) | Air consumption (Nℓ/min) | Mass (g) |
|-----------|--------------|------|------|------------------|---------------------|-----------------------|--------------------------|----------|
| VUH 05-4A | 4 | 41 | 11 | 0.5 | 91 | 7 | 11.5 | 11.5 |
| VUH 05-6A | 6 | 41.5 | 11.5 | | | | | 13 |
| VUH 07-4A | 4 | 47.5 | 11 | 0.7 | 92 | 12.5 (12) | 23 | 12.5 |
| VUH 07-6A | 6 | 48 | 11.5 | | | | | 11.5 |
| VUL 05-4A | 4 | 41 | 11 | 0.5 | 67 | 12 | 11.5 | 11.5 |
| VUL 05-6A | 6 | 41.5 | 11.5 | | | | | 12.5 |
| VUL 07-4A | 4 | 47.5 | 11 | 0.7 | 67 | 20 | 23 | 12 |
| VUL 07-6A | 6 | 48 | 11.5 | | | | | 12.5 |
| VUE 07-4A | 4 | 47.5 | 11 | 0.7 | 91 | 10 | 17 | 13 |
| VUE 07-6A | 6 | 48 | 11.5 | | | | | 12.5 |



VU

Pipe Type Straight Concentrated Exhaust



Metric Thread Type



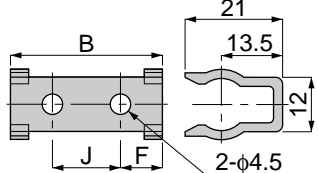
| Model | Tube dia. φD | R | A | B | L | C | E | *1 (mm) | *2 (-KPa) | *3 (Nℓ/min) | *4 (Nℓ/min) | Mass (g) |
|-------------|--------------|--------|---|------|------|------|------|---------|-----------|-------------|-------------|----------|
| VUH 05-M54J | 4 | M5x0.8 | 3 | 50 | 47 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 20 |
| VUH 05-M56J | 6 | | | 50.5 | 47.5 | 11.5 | 22.5 | | | | | 19.5 |
| VUH 05-M64J | 4 | M6x1 | 4 | 50 | 46.5 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 20 |
| VUH 05-M66J | 6 | | | 51 | 47 | 11.5 | 22.5 | | | | | 19.5 |
| VUH 05-014J | 4 | R1/8 | 8 | 54 | 50 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 22.5 |
| VUH 05-016J | 6 | | | 54.5 | 50.5 | 11.5 | 22.5 | | | | | 22 |
| VUH 07-M54J | 4 | M5x0.8 | 3 | 56.5 | 53.5 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 21 |
| VUH 07-M56J | 6 | | | 57 | 54 | 11.5 | 29 | | | | | 20.5 |
| VUH 07-M64J | 4 | M6x1 | 4 | 57 | 53 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 21 |
| VUH 07-M66J | 6 | | | 57.5 | 53.5 | 11.5 | 29 | | | | | 20.5 |
| VUH 07-014J | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 23.5 |
| VUH 07-016J | 6 | | | 61 | 57 | 11.5 | 29 | | | | | 23 |
| VUL 05-M54J | 4 | M5x0.8 | 3 | 50 | 47 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 19.5 |
| VUL 05-M56J | 6 | | | 50.5 | 47.5 | 11.5 | 22.5 | | | | | 19 |
| VUL 05-M64J | 4 | M6x1 | 4 | 50 | 46.5 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 20 |
| VUL 05-M66J | 6 | | | 51 | 47 | 11.5 | 22.5 | | | | | 19 |
| VUL 05-014J | 4 | R1/8 | 8 | 54 | 50 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 22 |
| VUL 05-016J | 6 | | | 54.5 | 50.5 | 11.5 | 22.5 | | | | | 21.5 |
| VUL 07-M54J | 4 | M5x0.8 | 3 | 56.5 | 53.5 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 20 |
| VUL 07-M56J | 6 | | | 57 | 54 | 11.5 | 29 | | | | | 21 |
| VUL 07-M64J | 4 | M6x1 | 4 | 57 | 53 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 20.5 |
| VUL 07-M66J | 6 | | | 57.5 | 53.5 | 11.5 | 29 | | | | | 20.5 |
| VUL 07-014J | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 23 |
| VUL 07-016J | 6 | | | 61 | 57 | 11.5 | 29 | | | | | 22.5 |
| VUE 07-M54J | 4 | M5x0.8 | 3 | 56.5 | 53.5 | 11 | 28.5 | 0.7 | 91 | 10 | 17 | 21.5 |
| VUE 07-M56J | 6 | | | 57 | 54 | 11.5 | 29 | | | | | 20.5 |
| VUE 07-M64J | 4 | M6x1 | 4 | 57 | 53 | 11 | 28.5 | 0.7 | 91 | 10 | 17 | 21 |
| VUE 07-M66J | 6 | | | 57.5 | 53.5 | 11.5 | 29 | | | | | 21 |
| VUE 07-014J | 4 | R1/8 | 8 | 60.5 | 56.5 | 11 | 28.5 | 0.7 | 91 | 10 | 17 | 23.5 |
| VUE 07-016J | 6 | | | 61 | 57 | 11.5 | 29 | | | | | 23 |

*1 Nozzle dia. *2 Final vacuum *3 Suction flow *4 Air consumption.



VUK

VU Type fixing holder



| Model | B | F | J | Mass (g) |
|--------|----|----|----|----------|
| VUK 05 | 33 | 9 | 15 | 2 |
| VUK 07 | 39 | 10 | 20 | 2 |

※VUK 05 for nozzle dia. 0.5 · VUK 07 for nozzle dia. 0.7

※For A type and J type only.

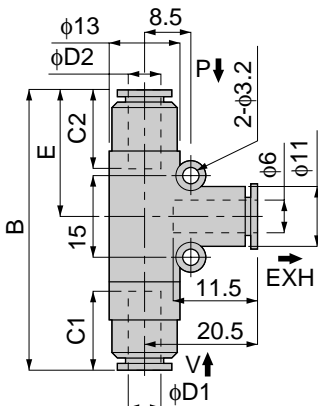


unit:mm



VU

Pipe Type Union Straight Concentrated Exhaust

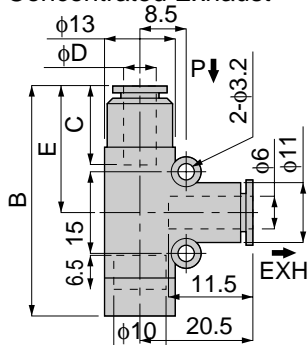


| Model | Tube dia. φD1 | Tube dia. φD2 | B | C1 | C2 | E | Nozzle dia. (mm) | Final vacuum (-KPa) | Suction flow (Nℓ/min) | Air consumption (Nℓ/min) | Mass (g) |
|------------|---------------|---------------|------|------|------|------|------------------|---------------------|-----------------------|--------------------------|----------|
| VUH 05-44J | 4 | 4 | 49 | 11 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 21 |
| VUH 05-46J | | 6 | 50 | | 11.5 | 22.5 | | | | | 20.5 |
| VUH 05-64J | 6 | 4 | 50.5 | 11.5 | 11 | 22 | | | | | 20 |
| VUH 05-66J | | 6 | | | 11.5 | 22.5 | | | | | 19.5 |
| VUH 07-44J | 4 | 4 | 55.5 | 11 | 11 | 25.5 | 0.7 | 92 | 12.5 (12) | 23 | 22.5 |
| VUH 07-46J | | 6 | 56.5 | | 11.5 | 26 | | | | | 21.5 |
| VUH 07-64J | 6 | 4 | 57 | 11.5 | 11 | 25.5 | | | | | 20.5 |
| VUH 07-66J | | 6 | | | 11.5 | 26 | | | | | 20.5 |
| VUL 05-44J | 4 | 4 | 49 | 11 | 11 | 22 | 0.5 | 67 | 12 | 11.5 | 21 |
| VUL 05-46J | | 6 | 50 | | 11.5 | 22.5 | | | | | 20.5 |
| VUL 05-64J | 6 | 4 | 50.5 | 11.5 | 11 | 22 | | | | | 20 |
| VUL 05-66J | | 6 | | | 11.5 | 22.5 | | | | | 19.5 |
| VUL 07-44J | 4 | 4 | 55.5 | 11 | 11 | 25.5 | 0.7 | 67 | 20 | 23 | 22 |
| VUL 07-46J | | 6 | 56.5 | | 11.5 | 26 | | | | | 21.5 |
| VUL 07-64J | 6 | 4 | 57 | 11.5 | 11 | 25.5 | | | | | 21 |
| VUL 07-66J | | 6 | | | 11.5 | 26 | | | | | 20.5 |
| VUE 07-44J | 4 | 4 | 55.5 | 11 | 11 | 25.5 | 0.7 | 91 | 10 | 17 | 22 |
| VUE 07-46J | | 6 | 56.5 | | 11.5 | 26 | | | | | 21.5 |
| VUE 07-64J | 6 | 4 | 57 | 11.5 | 11 | 25.5 | | | | | 20.5 |
| VUE 07-66J | | 6 | | | 11.5 | 26 | | | | | 20.5 |



VU

Pipe Type Adapter Concentrated Exhaust

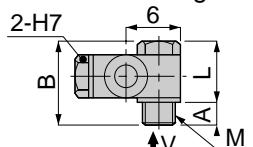


| Model | Tube dia. φD | B | C | E | Nozzle dia. (mm) | Final vacuum (-KPa) | Suction flow (Nℓ/min) | Air consumption (Nℓ/min) | Mass (g) |
|-----------|--------------|------|------|------|------------------|---------------------|-----------------------|--------------------------|----------|
| VUH 05-4J | 4 | 41 | 11 | 22 | 0.5 | 91 | 7 | 11.5 | 13.5 |
| VUH 05-6J | 6 | 41.5 | 11.5 | 22.5 | | | | | 13 |
| VUH 07-4J | 4 | 47.5 | 11 | 28.5 | 0.7 | 92 | 12.5 (12) | 23 | 15 |
| VUH 07-6J | 6 | 48 | 11.5 | 29 | | | | | 14.5 |
| VUL 05-4J | 4 | 41 | 11 | 22 | 0.5 | 67 | 12 | 11.5 | 13.5 |
| VUL 05-6J | 6 | 41.5 | 11.5 | 22.5 | | | | | 13 |
| VUL 07-4J | 4 | 47.5 | 11 | 28.5 | 0.7 | 67 | 22 | 23 | 15 |
| VUL 07-6J | 6 | 48 | 11.5 | 29 | | | | | 14 |
| VUE 07-4J | 4 | 47.5 | 11 | 28.5 | 0.7 | 91 | 10 | 17 | 14.5 |
| VUE 07-6J | 6 | 48 | 11.5 | 29 | | | | | 14.5 |



VM

Pad Direct-Mounting Elbow



| Model | M | A | B | L | Nozzle dia. (mm) | Final vacuum (-KPa) | Suction flow (Nℓ/min) | Air consumption (Nℓ/min) | Mass (g) |
|------------|--------|-----|------|----|------------------|---------------------|-----------------------|--------------------------|----------|
| VMH 05-M54 | M5×0.8 | 3.5 | 14.5 | 11 | 0.5 | 91 | 7 | 11.5 | 17 |
| VMH 05-M64 | M6×1 | 5.5 | 15.5 | 10 | | | | | 17.5 |
| VML 05-M54 | M5×0.8 | 3.5 | 14.5 | 11 | 0.5 | 67 | 11 | 11.5 | 17 |
| VML 05-M64 | M6×1 | 5.5 | 15.5 | 10 | | | | | 17 |

