

VSMR pump

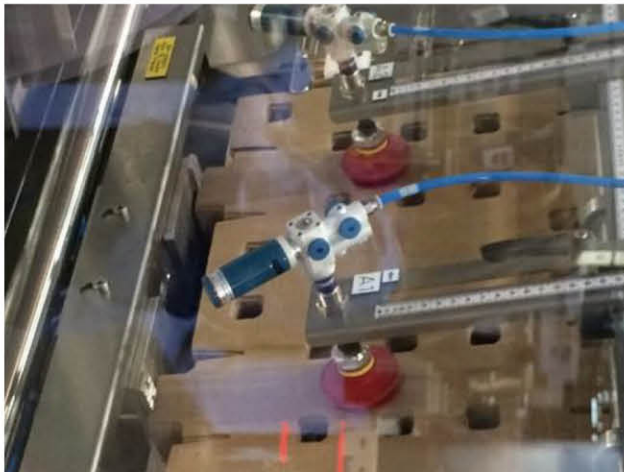
Features and Strengths

Highly operational reliability despite fluctuating or low compressed-air pressure
Auto quick release function – Fast response time
Multiple connection ports

Advantages

Fast response time with individual vacuum system available
Available for auto quick release without additional vacuum release control valve
Reliable and stable operation - High vacuum level and vacuum flow in efficient air consumption

| Application





Overall of specification

| Model | Max. Vacuum level (- kPa) | Max. Feed Pressure (bar) | Max. Vacuum Flow (NI/m) | Air Consumption (NI/m) | Noise level (dBA) |
|---------|---------------------------|--------------------------|-------------------------|------------------------|-------------------|
| VSMR202 | 90 | 7 | 44 | 40 | 55 ~ 65 |
| VSMR203 | 90 | 7 | 84.5 | 40 | 55 ~ 65 |

VACUUM PUMPS / VSMR pump

VSMR pump

VMECA VSMR pump is integrated with VMECA vacuum cartridge technology for reliable and stable performance in fluctuation or drop of compressed-air pressure. VQ pump is the most suitable in high speed application such as delta robot in packaging industry because SC pump has check valve on vacuum release port so, it can operate in 2 times faster evacuation time compared with conventional vacuum ejectors.



Key advantages

- VMECA vacuum cartridge integrated

Mount

VMECA vacuum cartridge

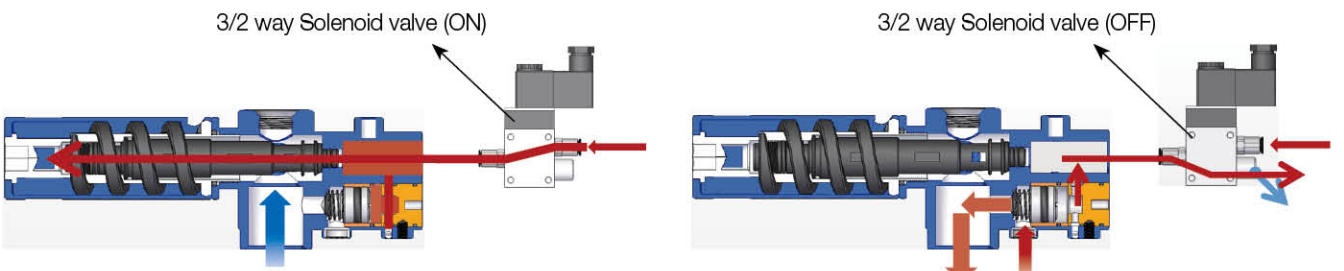
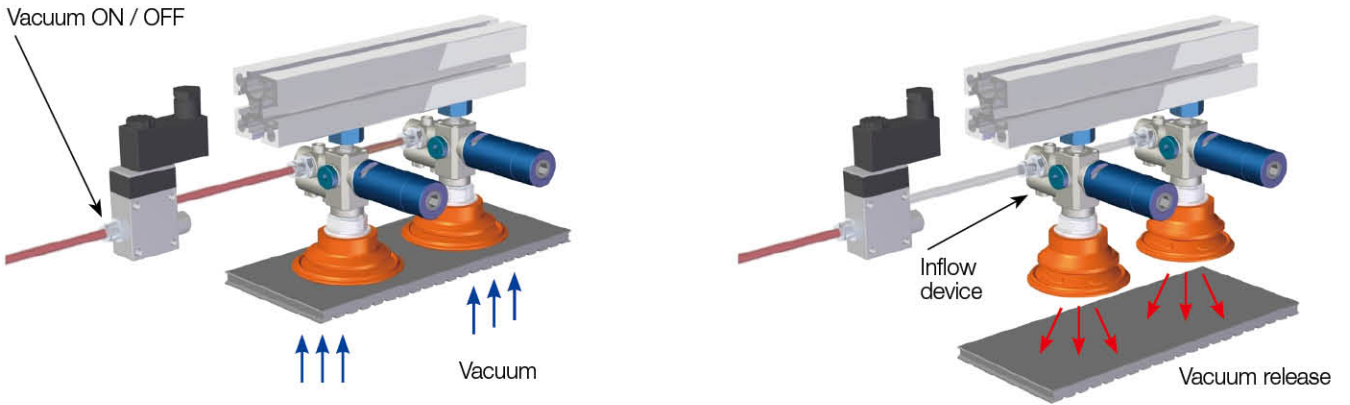
Auto vacuum release

Two fold silencer

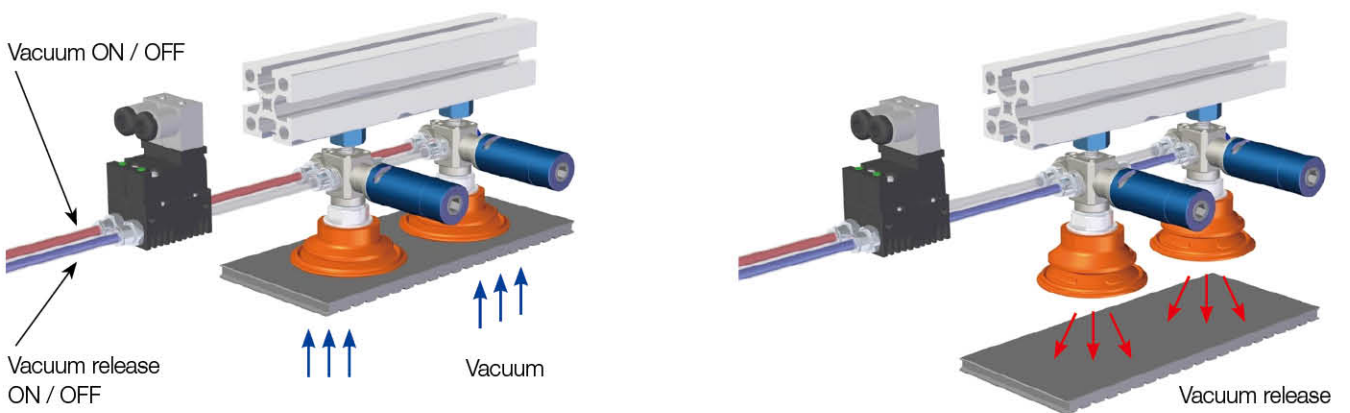


I Comparison with VSM

VSMR



VSM



VACUUM PUMPS / VSMR pump

VSMR202

Features and Strengths

- Efficient individual and independent point-of-use vacuum
- Highly operational reliability despite fluctuating or low compressed-air pressure
- Extremely quick response
- Available for multiple connection ports
- Extremely low noise level with VMECA Twofold silencer



Specifications

| Description | VSMR202 |
|--------------------|-------------|
| Max. Vacuum level | -90 kPa |
| Open Vacuum flow | 44 NI/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 80 °C |
| Noise level | 55 ~ 65 dBA |
| Weight | 237 g |

Vacuum Flow

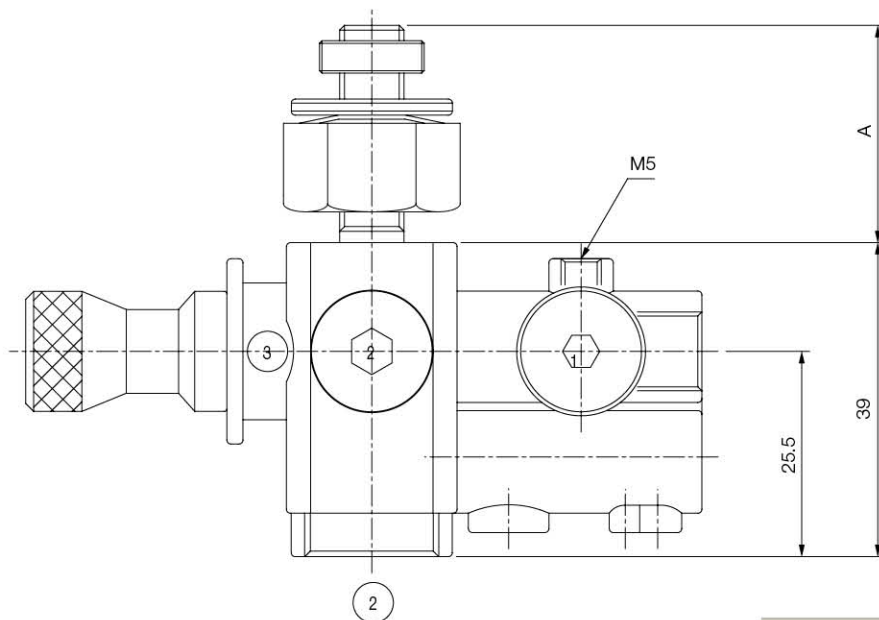
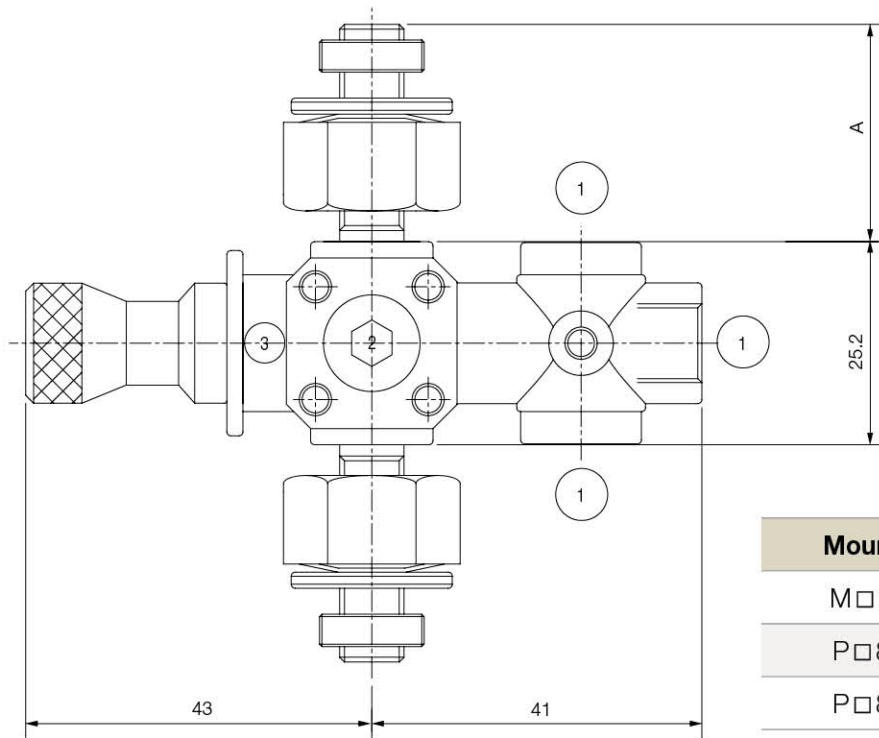
| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (NI/min) at different vacuum levels (-kPa) | | | | | | | | | |
|---------|--------------------|---------------------|--|------|------|------|------|------|-----|----|-----|----|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| VSMR202 | 48 | 1.7 | 38.5 | 20 | 16 | 12 | 5.3 | | | | | |
| | 65 | 2.2 | 39 | 26.5 | 17.3 | 15.6 | 13.5 | 8.4 | 2.6 | | | |
| | 90 | 3.14 | 44 | 36 | 24.5 | 16.5 | 16 | 13.8 | 10 | 7 | 3.5 | |
| | 89 | 4.0 | 42 | 38.8 | 28.5 | 21.2 | 15.8 | 12.2 | 9.5 | 7 | 2.4 | |

Evacuation Time

| Model | Feed Pressure (bar) | Air Consumption (NI/min) | Evacuation time in sec / liter to reach different vacuum levels (-kPa) | | | | | | | | | |
|---------|---------------------|--------------------------|--|------|------|------|------|------|------|------|----|--|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | |
| VSMR202 | 1.7 | 22 | 0.33 | 0.47 | 0.89 | 1.93 | | | | | | |
| | 2.2 | 25.5 | 0.20 | 0.47 | 0.70 | 0.92 | 1.24 | 1.35 | | | | |
| | 3.14 | 34 | 0.15 | 0.39 | 0.95 | 1.03 | 1.28 | 1.32 | 2.12 | 3.54 | | |
| | 4.0 | 40 | 0.15 | 0.42 | 0.56 | 0.80 | 0.99 | 1.21 | 1.46 | 3.74 | | |

Dimension

[Unit : mm]



1. Compressed air : 3xG1/8"
2. Vacuum : 1xG3/8" and 3xG1/8"
3. Exhaust

VACUUM PUMPS / VSMR pump

VSMR203

Features and Strengths

- Efficient individual and independent point-of-use vacuum
- Highly operational reliability despite fluctuating or low compressed-air pressure
- Extremely quick response
- Available for multiple connection ports
- Extremely low noise level with VMECA Twofold silencer



Specifications

| Description | VSMR203 |
|--------------------|-------------|
| Max. Vacuum level | -90 kPa |
| Open Vacuum flow | 84.5 NI/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 80 °C |
| Noise level | 55 ~ 65 dBA |
| Weight | 141 g |

Vacuum Flow

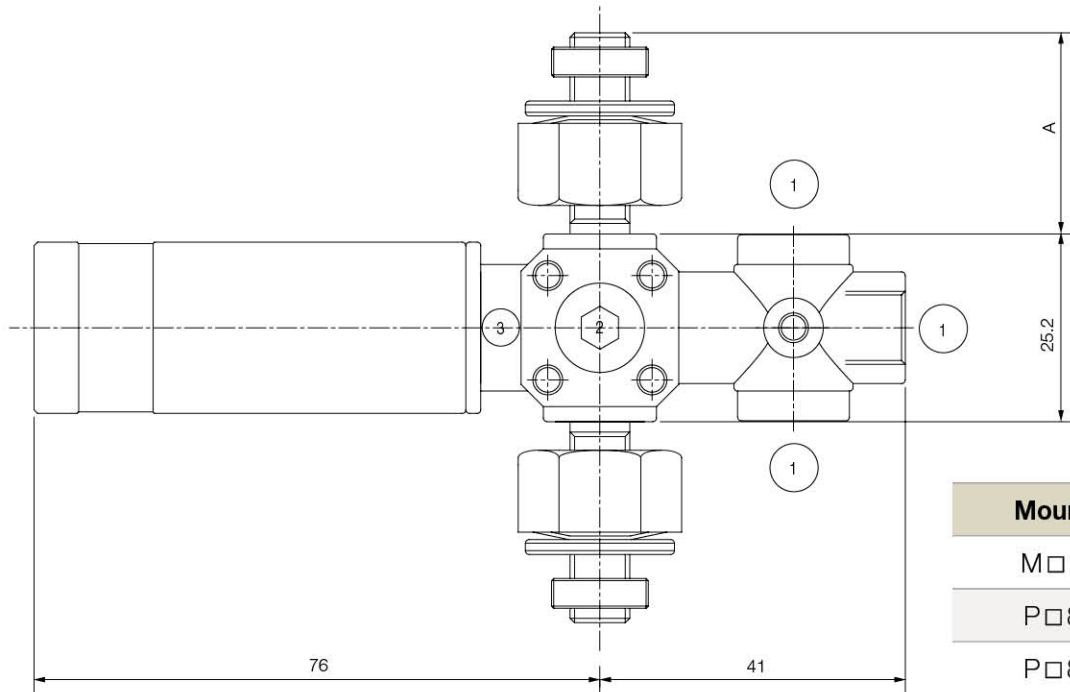
| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (NI/min) at different vacuum levels (-kPa) | | | | | | | | | |
|---------|--------------------|---------------------|--|------|------|------|------|------|-----|-----|-----|----|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| VSMR203 | 49 | 1.7 | 55 | 23.2 | 15.5 | 12.6 | 6.1 | | | | | |
| | 65 | 2.2 | 68 | 31 | 16.5 | 15.5 | 13.8 | 9 | 3.5 | | | |
| | 90 | 3.14 | 84 | 37.5 | 26 | 16 | 15.2 | 12.3 | 10 | 7.2 | 4 | |
| | 89 | 4.0 | 84.5 | 40 | 33.2 | 22.6 | 15.8 | 12 | 9.2 | 7.3 | 2.9 | |

Evacuation Time

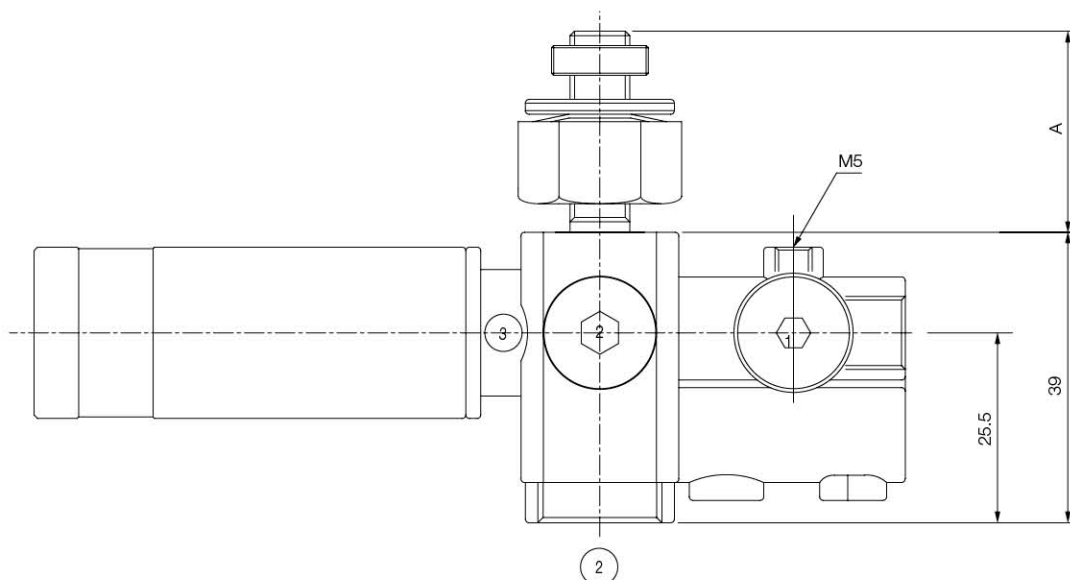
| Model | Feed Pressure (bar) | Air Consumption (NI/min) | Evacuation time in sec / liter to reach different vacuum levels (-kPa) | | | | | | | | | |
|---------|---------------------|--------------------------|--|------|------|------|------|------|------|------|----|--|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | |
| VSMR203 | 1.7 | 22 | 0.13 | 0.40 | 0.79 | 1.57 | | | | | | |
| | 2.2 | 25.5 | 0.08 | 0.39 | 0.59 | 0.85 | 1.10 | 0.96 | | | | |
| | 3.14 | 34 | 0.06 | 0.28 | 0.51 | 1.01 | 1.18 | 1.29 | 1.73 | 3.00 | | |
| | 4.0 | 40 | 0.08 | 0.24 | 0.50 | 0.71 | 0.85 | 1.18 | 1.41 | 3.05 | | |

Dimension

[Unit : mm]



| Mount | A |
|-------|----|
| M□8 | 16 |
| P□8 | 27 |
| P□8 | 22 |



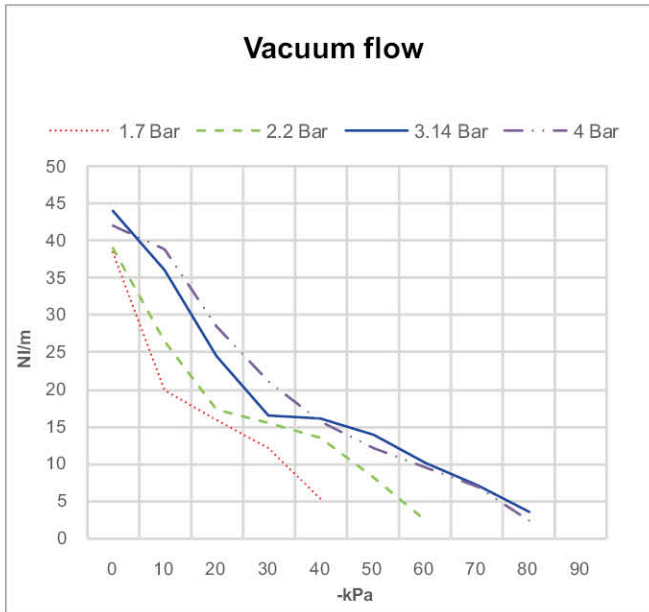
| Mount | A |
|-------|----|
| M□8 | 16 |
| P□8 | 27 |
| P□8 | 22 |

1. Compressed air : 3xG1/8"
2. Vacuum : 1xG3/8" and 3xG1/4"
3. Exhaust

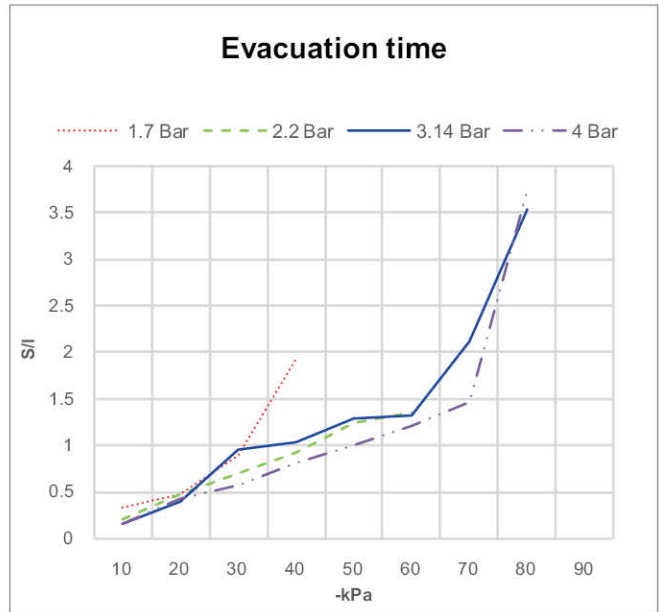
VACUUM PUMPS / VSMR pump

Performance data

VSMR202

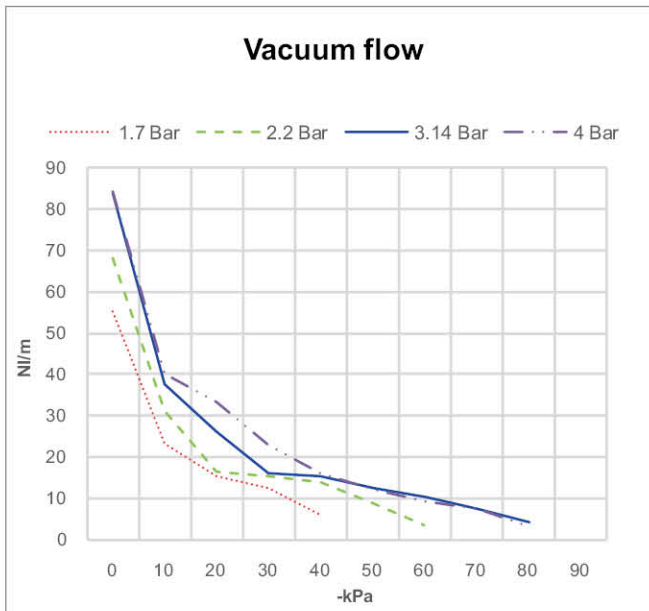


※ Vacuum flow at different vacuum level

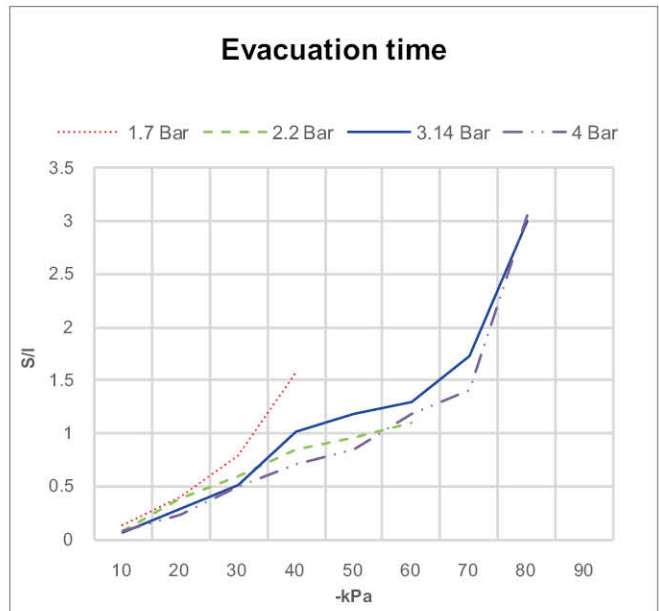


※ Time to evacuate a volume at different vacuum level

VSMR203

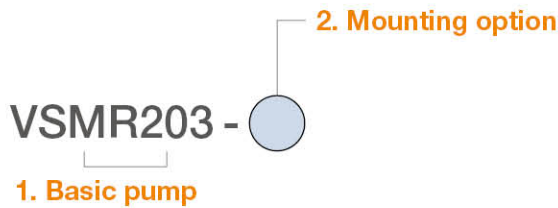


※ Vacuum flow at different vacuum level



※ Time to evacuate a volume at different vacuum level

Build an Ordering No.



| 1. Basic pump | Description | Symbol |
|--------------------|---|---------|
| | VSMR pump, 2-stage cartridge, Plug | VSMR202 |
| | VSMR pump, 3-stage cartridge, Two-fold silencer | VSMR203 |
| 2. Mounting option | Description | Symbol |
| | 4x screw M4 top, 5x plug G1/8"(direct mount) | F |
| | M8 16mm screw top, 4x plug G1/8" incl. mounting kit | MT8 |
| | M8 16mm screw left, 4x plug G1/8" incl. mounting kit | ML8 |
| | M8 16mm screw right, 4x plug G1/8" incl. mounting kit | MR8 |
| | M8 27mm screw top, 4x plug G1/8" incl. profile kit with jam nut | PT8 |
| | M8 27mm screw left, 4x plug G1/8" incl. profile kit with jam nut | PL8 |
| | M8 27mm screw right, 4x plug G1/8" incl. profile kit with jam nut | PR8 |
| | M6 22mm screw top, 4x plug G1/8" incl. profile kit with jam nut | PT6 |
| | M6 22mm screw left, 4x plug G1/8" incl. profile kit with jam nut | PL6 |
| | M6 22mm screw right, 4x plug G1/8" incl. profile kit with jam nut | PR6 |

Spare Parts – Basic pumps

| Part No. | Description | Weight (g) |
|----------|---|------------|
| VSMR202 | VSMR pump, 2-stage cartridge, Plug | 237 |
| VSMR203 | VSMR pump, 3-stage cartridge, Two-fold silencer | 147 |

Spare Parts – Mounting

| Part No. | Description |
|----------|---|
| F | 4x screw M4 top, 5x plug G1/8"(direct mount) |
| M8 | M8 16mm screw, 4x plug G1/8" incl. mounting kit |
| P8 | M8 27mm screw, 4x plug G1/8" incl. profile kit with jam nut |
| P6 | M6 22mm screw, 4x plug G1/8" incl. profile kit with jam nut |

Spare Parts – Cartridges

| Part No. | Description | Weight (g) |
|----------|--|------------|
| VC202 | Mini vacuum cartridge, 2-Stage for VSMR202 | 2.69 |
| VC203 | Mini vacuum cartridge, 3-Stagefor VSMR203 | 5.45 |

Spare Parts – Plug & Silencer

| Part No. | Description |
|----------|-------------------------------|
| VCP-M14 | Holding plug for VSMR202 |
| VTTs-M14 | Two-Fold Silencer for VSMR203 |