

VACUUM PUMPS / VQ pumps

VQ pump

VMECA VQ 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 and features quick release function without vacuum release control valve – It can contribute the cost save for additional valve and tubing, etc. The flow rate for vacuum release can be adjusted in easy way according to applications.



Key advantages

- VMECA vacuum cartridge integrated
- Available for quick release without vacuum release valve
- Auto filter cleaning system

Vacuum release adjuster

VMECA vacuum cartridge

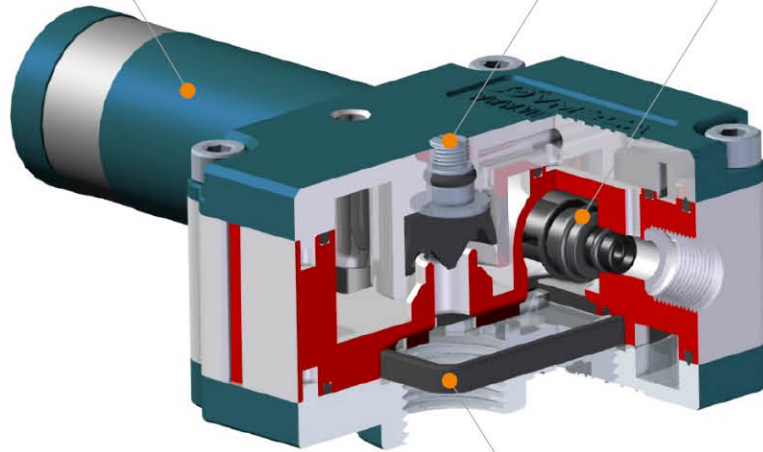


Two fold silencer

Two-fold silencer

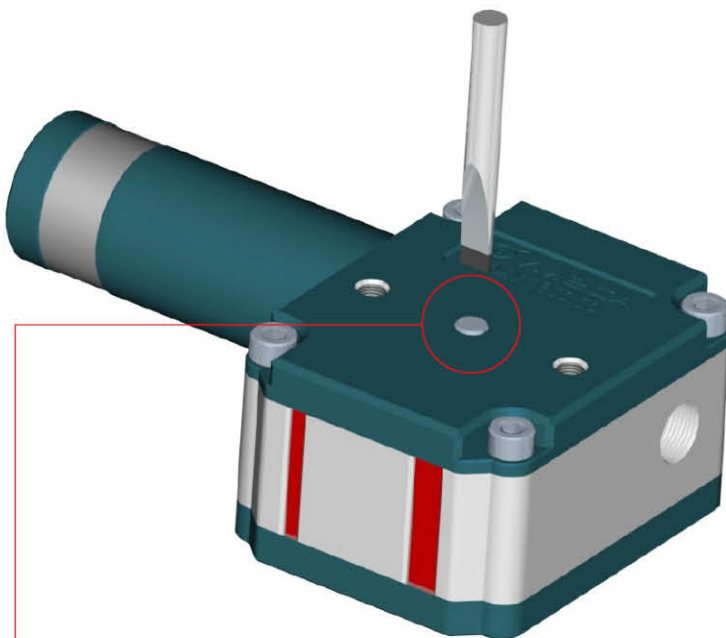
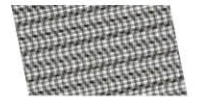
Adjustable release flow

Vacuum Cartridge

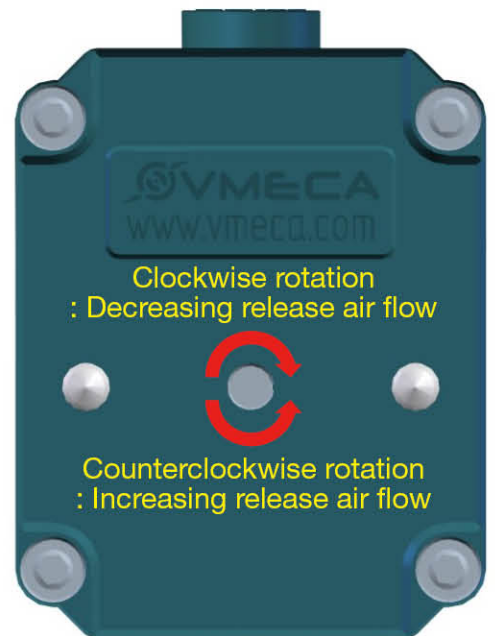


Vacuum Filter (Mesh)

Vacuum Release



Vacuum release adjuster



VACUUM PUMPS / VQ pumps

VQ202 / VQ203

Features and Strengths

- Highly operational reliability despite fluctuating or low compressed-air pressure
- Auto quick release
- Quick response time
- Compact size and light weight
- Extremely low noise level with VMECA Twofold silencer



Specifications

| Description | VQ202 | VQ203 |
|--------------------|-------------|-------------|
| Max. Vacuum level | -90 kPa | -90 kPa |
| Open Vacuum flow | 44 NI/min | 84.5 NI/min |
| Max. Feed pressure | 7 bar | 7 bar |
| Temperature | -20 ~ 80 °C | -20 ~ 80 °C |
| Noise level | 59 ~ 68 dbA | 55 ~ 65 dbA |
| Weight | 146 g | 160 g |

Vacuum Flow

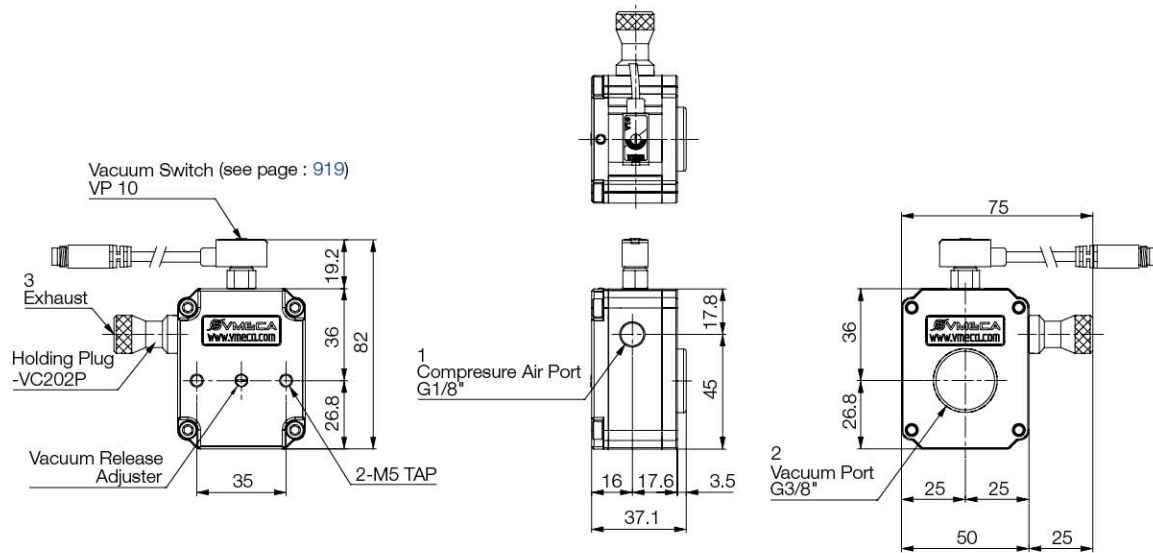
| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (NI/min) at different vacuum levels (-kPa) | | | | | | | | | |
|-------|--------------------|---------------------|--|------|------|------|------|------|-----|-----|-----|----|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| VQ202 | 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 | - |
| VQ203 | 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 |
| VQ202 | 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 | - |
| VQ203 | 1.7 | 22 | 0.13 | 0.40 | 0.79 | 1.57 | - | - | - | - | - |
| | 2.2 | 25.5 | 0.08 | 0.39 | 0.59 | 0.85 | 0.96 | 1.10 | - | - | - |
| | 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 | - |

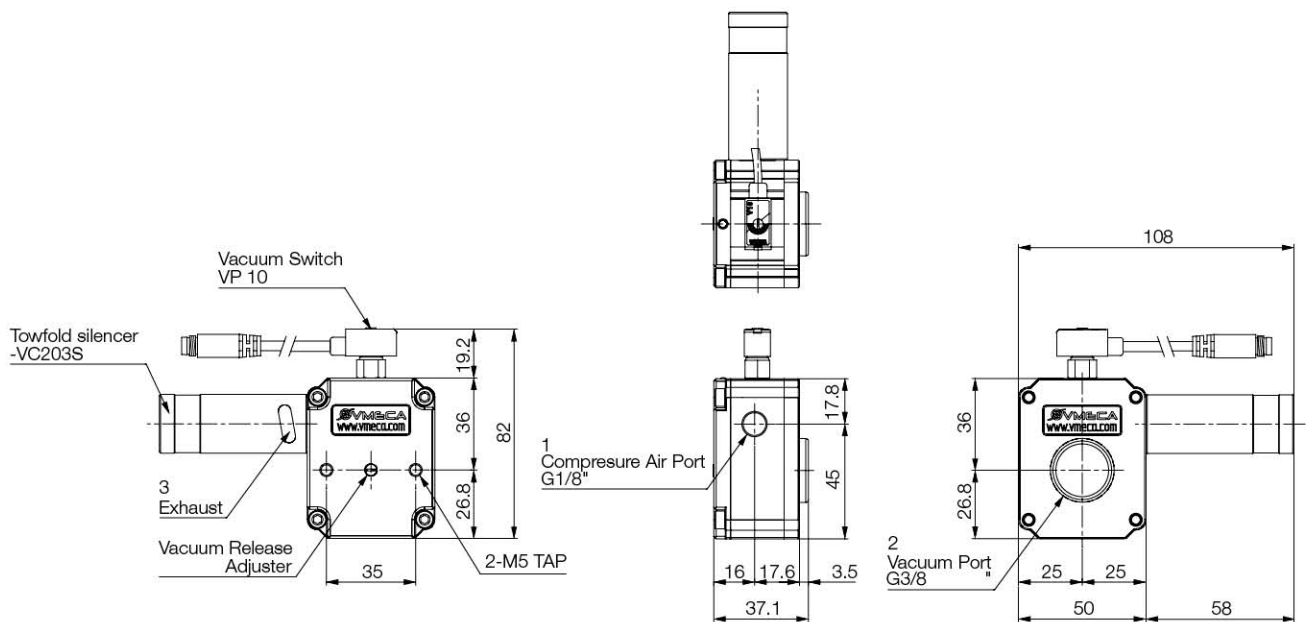
Dimensions – VQ202P with switch

[Unit : mm]



Dimensions – VQ203S with switch

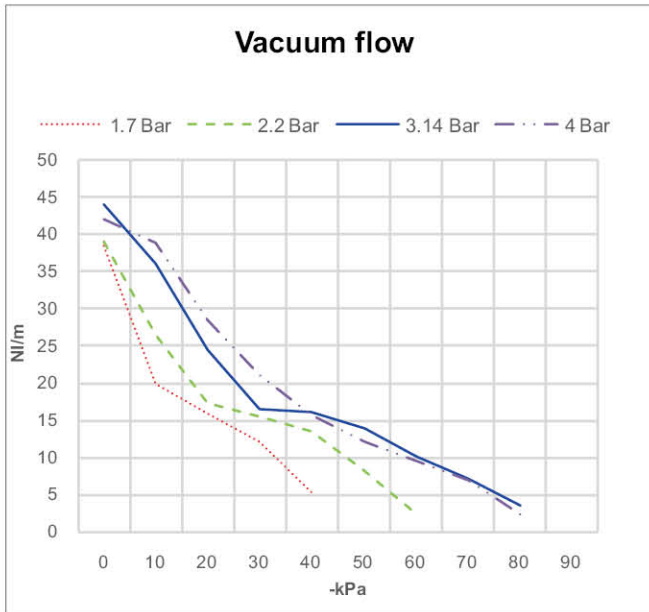
[Unit : mm]



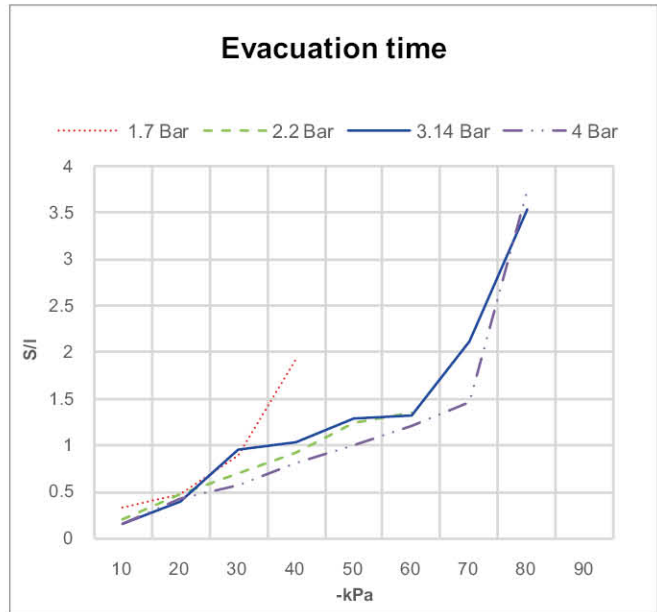
VACUUM PUMPS / VQ pumps

Performance data

VQ202

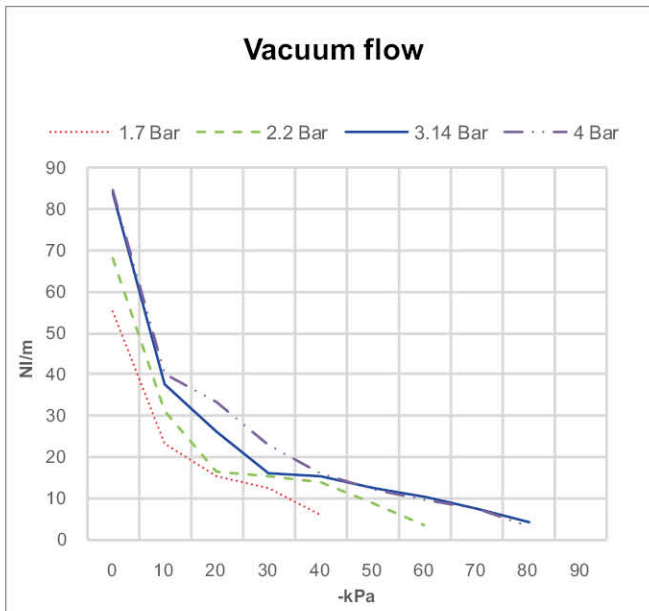


※ Vacuum flow at different vacuum level

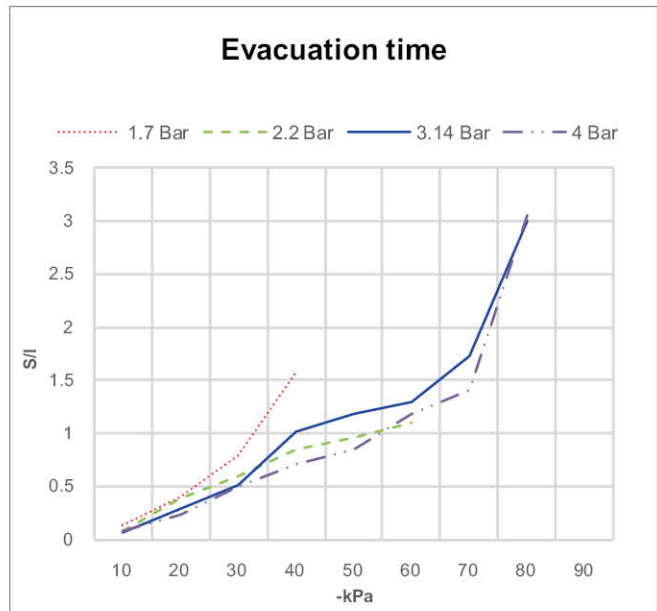


※ Time to evacuate a volume at different vacuum level

VQ203

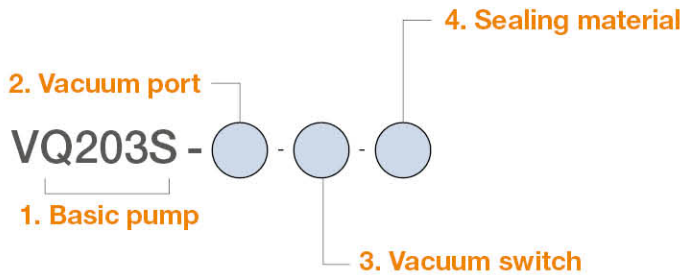


※ Vacuum flow at different vacuum level



※ Time to evacuate a volume at different vacuum level

I Build an Ordering No.



| 1. Basic pump | Description | Symbol |
|---------------------|---|--------|
| | VQ pump, 2-stage cartridge, Plug | VQ202P |
| | VQ pump, 3-stage cartridge, Two-fold silencer | VQ203S |
| 2. Vacuum port | Description | Symbol |
| | Vacuum port, G3/8" female | 38F |
| 3. Vacuum switch | Description | Symbol |
| | No vacuum switch | Blank |
| | LED switch, No analog supply, M8-3pins, NPN | S |
| | LED switch, No analog supply, M8-3pins, PNP | SP |
| | LED switch, No analog supply, Grommet, NPN | SG |
| | LED switch, No analog supply, Grommet, PNP | SGP |
| | Digital switch, No analog supply, M8-4pins, NPN | S2 |
| | Digital switch, No analog supply, M8-4pins, PNP | S2P |
| | Digital switch, No analog supply, Grommet, NPN | SG2 |
| | Digital switch, No analog supply, Grommet, PNP | SG2P |
| | Digital switch, Analog supply, Grommet, NPN | SG3 |
| | Digital switch, Analog supply, Grommet, PNP | SG3P |
| 4. Sealing material | Description | Symbol |
| | NBR | Blank |
| | VITON | V |
| | EPDM | E |

I Spare Parts – Basic pumps

| Part No. | Description | Weight (g) |
|------------|---|------------|
| VQ202P-38F | VQ pump, 2-stage cartridge, Plug, Vacuum port G3/8" female | 146 |
| VQ203S-38F | VQ pump, 3-stage cartridge, Two-fold silencer, Vacuum port G3/8" female | 160 |

I Spare Parts – Cartridges

| Part No. | Description | Available model |
|----------|--------------------------------|-----------------|
| VC202 | Mini Vacuum Cartridge, 2-Stage | VQ202P-38F |
| VC203 | Mini Vacuum Cartridge, 3-Stage | VQ203S-38F |

I Spare Parts – Plug & Silencer

| Part No. | Description |
|----------|----------------------------------|
| VCP-M14 | Holding plug for VQ202P-38F |
| VTTS-M14 | Two-Fold Silencer for VQ203S-38F |