

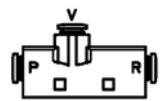
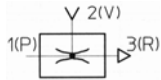
Vacuum generator VN-...-RR

High vacuum of 0.89 vac bar or High suction rate at 90 l/min

Cleanroom class ISO 4 (FS209E class 10)

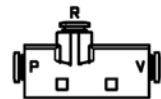
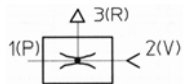
Standard design:

With conventional configuration: Supply and vacuum port turned by 90°, since the drawn-in flow from V to R is diverted by 90°.



Inline design:

With supply and vacuum port arranged in a line. This design allows the generator to be mounted directly in a tubing line to save space.



Technical data

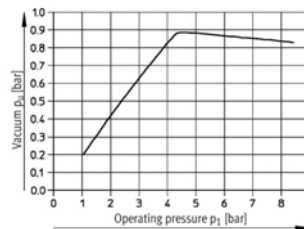
Medium: Compressed air, filter 40 µm, unlubricated
 Operating pressure: 1...8 bar
 Max. vacuum: 0.89 bar
 Max. suction rate: 90 l/min
 Temperature range: 0...60 °C

- Vacuum generators for generation of vacuum in the higher range to -0.89 bar
- Vacuum generators for high suction rates resulting in very short evacuation times
- Housing width 14 mm, 18 mm
- Plastic type
- Vacuum generators which functions on the ejector principle
- Simple, compact design
- Can be used directly in the workplace, making them very effective
- Versatile connection options:
 - With screw in thread
 - T-shaped housing
 - Straight housing without exhaust port for space-saving assembly in a tubing line or directly in the suction cup holder
- Laval nozzles in four nominal sizes:
 - 0.45 mm
 - 0.7 mm
 - 0.95 mm
 - 1.4 mm



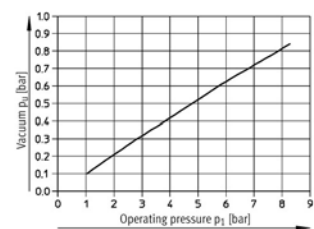
High vacuum

Up to 0.89 bar



High suction volume

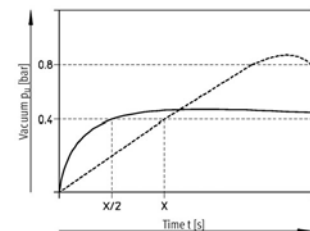
Up to 90 l/min which results in very short evacuation times.



System comparison

High vacuum vs. High suction volume

The first type of generator has been optimised for the generation of high vacuum at comparatively low suction volume rates. The second type of generator, on the other hand, can achieve very short evacuation times because of the high suction volume rate at relatively low vacuum.



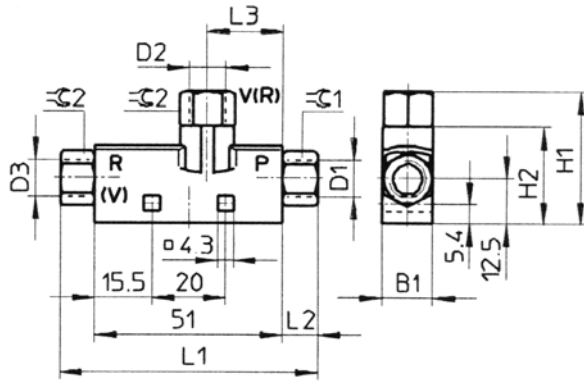
..... High vacuum
 — High suction volume

| High vacuum | Part No. | High suction rate | | | Nominal sizes [mm] | Housing width [mm] | Connection | | | Design |
|---------------------------|----------|---------------------------|----------|------|--------------------|--------------------|------------|---------|-----------------|--------|
| | | Type | Part No. | Type | | | 1P [D1] | 2V [D2] | 3R [D3] | |
| VN-05-H-T3-PI4-VI4-RI4-RR | 15024717 | VN-05-L-T3-PI4-VI4-RI4-RR | 15024725 | 0.45 | 14 | G1/8 | G1/8 | G1/8 | Standard design | |
| VN-07-H-T3-PI4-VI4-RI4-RR | 15024718 | VN-07-L-T3-PI4-VI4-RI4-RR | 15024726 | 0.7 | 14 | G1/8 | G1/8 | G1/8 | | |
| VN-10-H-T3-PI4-VI4-RI4-RR | 15024720 | VN-10-L-T3-PI4-VI4-RI4-RR | 15024727 | 0.95 | 14 | G1/8 | G1/8 | G1/8 | | |
| VN-14-H-T4-PI4-VI5-RI5-RR | 15024721 | VN-14-L-T4-PI4-VI5-RI5-RR | 15024728 | 1.4 | 18 | G1/8 | G1/4 | G1/4 | | |
| VN-05-M-T3-PI4-VI4-RI4-RR | 15024722 | VN-05-N-T3-PI4-VI4-RI4-RR | 15024730 | 0.45 | 14 | G1/8 | G1/8 | G1/8 | In-line design | |
| VN-07-M-T3-PI4-VI4-RI4-RR | 15024723 | - | - | 0.7 | 14 | G1/8 | G1/8 | G1/8 | | |

Vacuum generator VN-...-RR

High vacuum of 0.89 vac bar or High suction rate at 90 l/min

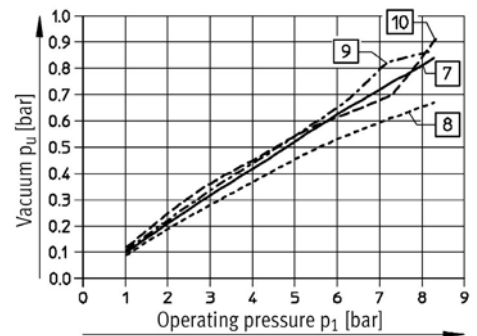
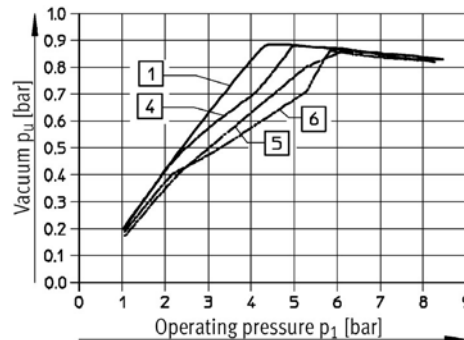
Cleanroom class ISO 4 (FS209E class 10)



| Type | B1 | Connections | | | H1 | H2 | L1 | L2 | L3 | G1 | G2 |
|-----------------------------|----|-------------|-------|-------|------|------|------|------|------|----|----|
| | | 1 (P) | 2 (V) | 3 (R) | | | | | | | |
| VN-...-T3-PI4-VI4-RI4-RR | 14 | G1/8 | G1/8 | G1/8 | 35.7 | 26.2 | 70 | 9.5 | 25.5 | 13 | 13 |
| VN-14-...-T4-PI4-VI5-RI5-RR | 18 | G1/8 | G1/4 | G1/4 | 45.5 | 32.7 | 81.9 | 13.1 | 22 | 13 | 17 |

Vacuum as a function of operating pressure

- 1 VN-05-H-...-RR
- 4 VN-14-H-...-RR
- 5 VN-05-M-...-RR
- 6 VN-07-M-...-RR
- 7 VN-05-L-...-RR
- 8 VN-07-L-...-RR
- 9 VN-10-L-...-RR
- 10 VN-14-L-...-RR



| Performance data for high vacuum generators | | Standard | | | | Inline | |
|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Size | | VN-05-H-... | VN-07-H-... | VN-10-H-... | VN-14-H-... | VN-05-M-... | VN-07-M-... |
| Max. vacuum is at operating pressure | [vac. bar] | 0.88 | 0.88 | 0.89 | 0.88 | 0.86 | 0.86 |
| | [bar] | 4.5 | 4.7 | 4.5 | 5 | 6 | 5.8 |
| Suction rate with respect to atmosphere max. at operating pressure | [l/min] | 6.2 | 16 | 25 | 51.6 | 6.1 | 13.5 |
| | [bar] | 2.1 | 2.1 | 3.1 | 5.1 | 6.3 | 7 |
| Pressurisation time for 1 l volume at p ₁ = 6 bar evacuated at maximum vacuum | [s] | 4.8 | 1.9 | 1.1 | 0.5 | 4.7 | 2.1 |
| Performance data for high suction rate generators | | Standard | | | | Inline | |
| Size | | VN-05-L-... | VN-07-L-... | VN-10-L-... | VN-14-L-... | VN-05-N-... | - |
| Max. suction rate with respect to atmosphere at operating pressure | [l/min] | 15.3 | 38.8 | 52 | 88.4 | 12 | - |
| | [bar] | 5.5 | 6.2 | 5.2 | 6.2 | 6 | - |
| achieved with vacuum | [vac. bar] | 0.55 | 0.55 | 0.56 | 0.57 | 0.55 | - |
| Pressurisation time for 1 l volume at p ₁ = 6 bar evacuated at maximum vacuum | [s] | 1.7 | 0.5 | 0.46 | 0.25 | 1.57 | - |

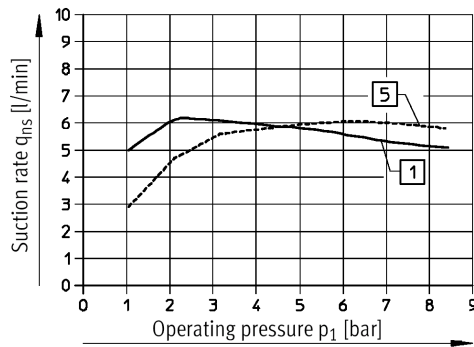
Vacuum generator VN-...-RR

High vacuum of 0.89 vac bar or High suction rate at 90 l/min

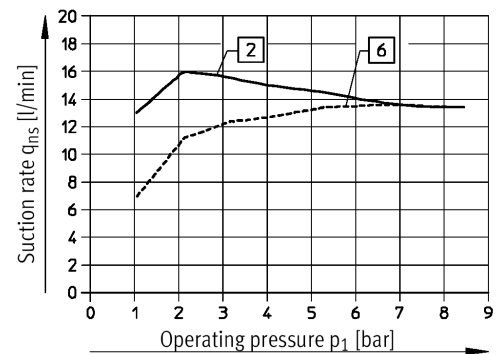
Cleanroom class ISO 4 (FS209E class 10)

Suction flow rate
(with respect to atmosphere)
as a function of operating
pressure

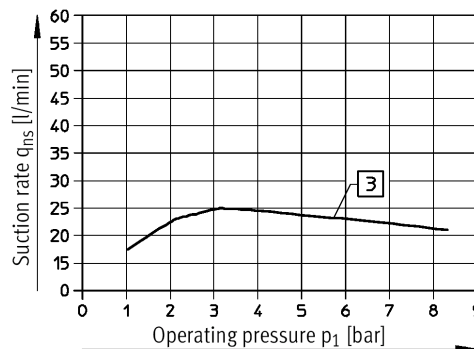
High vacuum



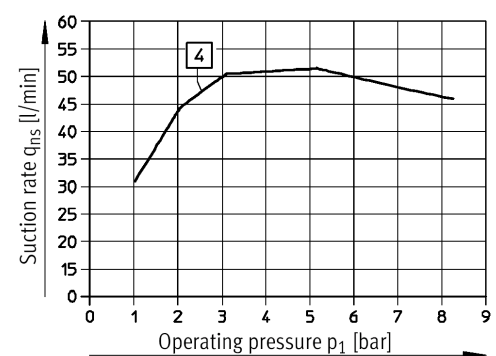
1 VH-05-H...-RR 5 VH-05-M...-RR



2 VH-07-H...-RR 6 VH-07-M...-RR



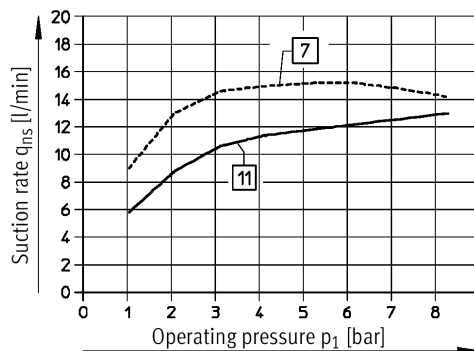
3 VH-10-H...-RR



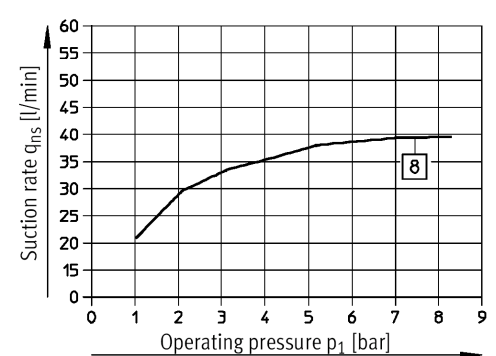
4 VH-14-H...-RR

Suction flow rate
(with respect to atmosphere)
as a function of operating
pressure

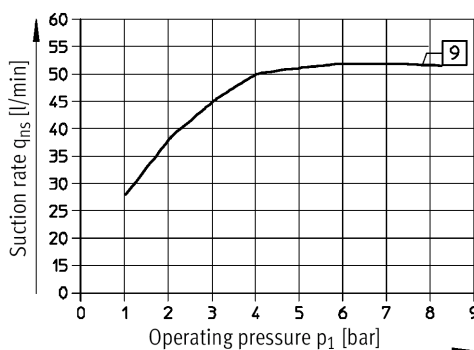
High suction rate



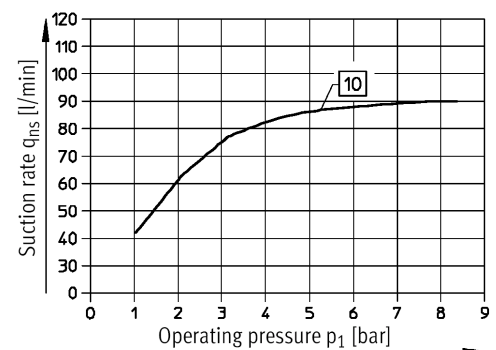
7 VH-05-L...-RR 11 VH-05-N...-RR



8 VH-07-L...-RR



9 VH-10-L...-RR



10 VH-14-L...-RR