

# VRD-4/8/16/24/30 48/65/90

Pumping speed: 4-90m<sup>3</sup>/h

## Dual-stage rotary vane vacuum pump



## Product Feature

- **Excellent performance**

Integral pump structure, require higher accuracy;  
Proven vanes technology,  
makes the performance more stable;  
Ensure the pump system with higher reliability.

- **Excellent heat dissipation**

Air-cooled structure, without external water  
cooling system, reduce the installation and  
maintanence costs.

- **Forced lubrication**

Built-in gear pump and constant pressure oil  
supply mechanism forced oil supply,  
ensure the stable and reliable operation under  
high suction pressure.

- **Two-shift adjustable gas ballast valve**

Meet customer's vacuum requirement and  
steam handling capacity.

- **FKM seals**

Improve corrosion resistance and solve the  
problem of oil leakage.

- **Double anti-suck back structure**

Automatically prevent oil suck back, and more  
reliably protects your vacuum system from oil  
contamination after vacuum pump shutdown.

- **High quality oil mist filter (for option)**

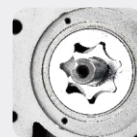
Effectively filter oil mist, protect the environment  
clean.



Gas ballast



Auto anti-suckback valve



Gear pump



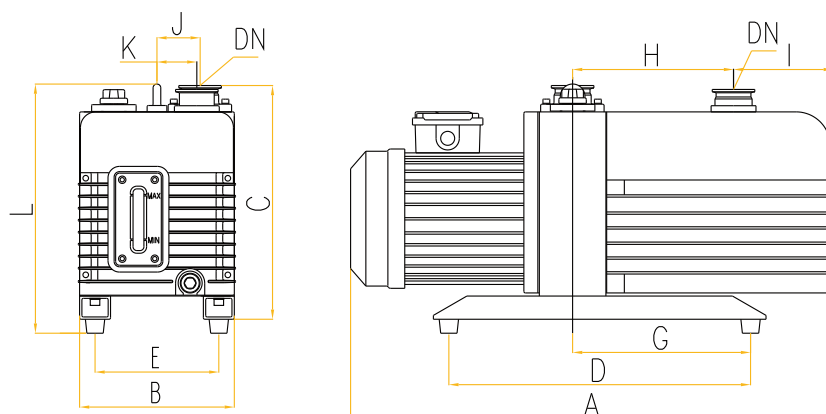
Integrated pump body structure

## Specifications

| Model                                       |      |                            | VRD-4              | VRD-8              | VRD-16             | VRD-24             |
|---------------------------------------------|------|----------------------------|--------------------|--------------------|--------------------|--------------------|
| Displacement speed                          | 50Hz | m <sup>3</sup> /h<br>(L/s) | 4(1.1)             | 8(2.2)             | 16(4.4)            | 24(6.6)            |
|                                             | 60Hz |                            | 4.8(1.3)           | 9.6(2.6)           | 19.2(5.2)          | 28.8(7.9)          |
| Ultimate partial pressure gas ballast close |      | Pa                         | 5×10 <sup>-2</sup> | 5×10 <sup>-2</sup> | 4×10 <sup>-2</sup> | 4×10 <sup>-2</sup> |
| Ultimate total pressure gas ballast close   |      | Pa                         | 5×10 <sup>-1</sup> | 5×10 <sup>-1</sup> | 4×10 <sup>-1</sup> | 4×10 <sup>-1</sup> |
| Ultimate total pressure gas ballast open    |      | Pa                         | 10                 | 10                 | 8×10 <sup>-1</sup> | 8×10 <sup>-1</sup> |
| Power supply                                |      |                            | Single/Three-Ph    | Single/Three-Ph    | Single/Three-Ph    | Single/Three-Ph    |
| Power rating(50/60Hz)                       |      | kW                         | 0.4/0.37           | 0.4/0.37           | 0.75/0.55          | 1.1/0.75           |
| Level of protection                         |      |                            | IP44               | IP44               | IP44               | IP44               |
| Intake and exhaust                          |      |                            | KF16/25            | KF16/25            | KF25               | KF25/40            |
| Oil capacity                                |      | L                          | 0.6~1.0            | 0.6~1.0            | 0.9~1.5            | 1.3~2.0            |
| Motor speed (50/60Hz)                       |      | rpm                        | 1440/1720          | 1440/1720          | 1440/1720          | 1440/1720          |
| Ambient temperature                         |      | °C                         | 10-40              | 10-40              | 10-40              | 10-40              |
| Noise level (50Hz)                          |      | dB                         | ≤52                | ≤52                | ≤58                | ≤58                |
| Weight                                      |      | kg                         | 19                 | 21                 | 30                 | 35                 |
| Dimension (L*W*H)                           |      | mm                         | 445x144x217        | 445x144x217        | 535x188x275.2      | 567x188x275.5      |

| Model                                       |      |                            | VRD-30             | VRD-48             | VRD-65             | VRD-90             |
|---------------------------------------------|------|----------------------------|--------------------|--------------------|--------------------|--------------------|
| Displacement speed                          | 50Hz | m <sup>3</sup> /h<br>(L/s) | 30(8.3)            | 48(13.3)           | 65(18)             | 85(23.6)           |
|                                             | 60Hz |                            | 36(9.9)            | 57.6(16)           | 78(21.6)           | 102(28.3)          |
| Ultimate partial pressure gas ballast close |      | Pa                         | 4×10 <sup>-2</sup> | 4×10 <sup>-2</sup> | 4×10 <sup>-2</sup> | 4×10 <sup>-2</sup> |
| Ultimate total pressure gas ballast close   |      | Pa                         | 4×10 <sup>-1</sup> | 4×10 <sup>-1</sup> | 4×10 <sup>-1</sup> | 4×10 <sup>-1</sup> |
| Ultimate total pressure gas ballast open    |      | Pa                         | 8×10 <sup>-1</sup> | 1.5                | 1.5                | 1.5                |
| Power supply                                |      |                            | Single/Three-Ph    | Three-Ph           | Three-Ph           | Three-Ph           |
| Power rating                                |      | kW                         | 1.1                | 1.5                | 2.2                | 3                  |
| Level of protection                         |      |                            | IP44               | IP44               | IP44               | IP44               |
| Intake and exhaust                          |      |                            | KF25/40            | KF40               | KF40               | KF40               |
| Oil capacity                                |      | L                          | 1.3~2.0            | 3.3~4.5            | 3.3~4.5            | 3.3~4.5            |
| Motor speed (50/60Hz)                       |      | rpm                        | 1440/1720          | 1440/1720          | 1440/1720          | 1440/1720          |
| Ambient temperature                         |      | °C                         | 10-40              | 10-40              | 10-40              | 10-40              |
| Noise level (50Hz)                          |      | dB                         | ≤58                | ≤62                | ≤62                | ≤65                |
| Weight                                      |      | kg                         | 43                 | 62                 | 65                 | 65                 |
| Dimension (L*W*H)                           |      | mm                         | 567x188x272        | 730x234x358        | 730x234x358        | 730x234x358        |

## Dimension



VRD Dimensions (unit:mm)

| Model  | A   | B   | C     | D   | E   | G   | H     | I   | J    | K  | L   | DN      |
|--------|-----|-----|-------|-----|-----|-----|-------|-----|------|----|-----|---------|
| VRD-4  | 445 | 144 | 217   | 210 | 110 | 105 | 143.5 | 45  | 45.5 | 34 | /   | KF16/25 |
| VRD-8  | 445 | 144 | 217   | 210 | 110 | 105 | 143.5 | 45  | 45.5 | 34 | /   | KF16/25 |
| VRD-16 | 535 | 188 | 275.5 | 320 | 148 | 160 | 165   | 69  | 59   | 38 | 295 | KF25    |
| VRD-24 | 567 | 188 | 275.5 | 320 | 148 | 160 | 185   | 82  | 59   | 47 | 295 | KF25/40 |
| VRD-30 | 567 | 188 | 275.5 | 320 | 148 | 160 | 185   | 82  | 59   | 47 | 295 | KF25/40 |
| VRD-48 | 730 | 234 | 358   | 396 | 190 | 200 | 223   | 157 | 69   | 55 | 390 | KF40    |
| VRD-65 | 730 | 234 | 358   | 396 | 190 | 200 | 223   | 157 | 69   | 55 | 390 | KF40    |
| VRD-90 | 730 | 234 | 358   | 396 | 190 | 200 | 223   | 157 | 69   | 55 | 390 | KF40    |

