# Conveying pump

## Features and Strengths

Single stage vacuum ejector integrated in pump body
High vacuum flow for transferring bulk materials, granules and powders, etc.

## Advantages

Reliable and cost effective solution for product transfer
No maintenance due to non-clogging structure

## Application





## Recommended Lifting Force (Max.)

| Model | Max. Vacuum level (- kPa) | Max. Feed Pressure (bar) | Max. Vacuum Flow (Nl/m) | Air Consumption (Nl/m) |
|---|---|---|---|---|
| VTRA250 | 85 | 7 | 283 | 113~340 |
| VTRA375 | 85 | 7 | 849 | 175~820 |
| VTRA500 | 70 | 7 | 1698 | 340~934 |
| VTRA750 | 70 | 7 | 3396 | 651~1783 |
| VTRF2-3 | 27 | 7 | 283 | 88~170 |
| VTRF3-3 | 15.2 | 7 | 424 | 99~170 |
| VTRF5-6 | 33.8 | 7 | 849 | 396~679 |
| VTRF7-6 | 27 | 7 | 1698 | 792~1358 |
| VTRF15-3 | 4.4 | 7 | 4670 | 396~769 |
| VTRF15-6 | 8.5 | 7 | 5660 | 792~1358 |

# VTRA250

## Features and Strengths

· Excellent in high contamination areas where dust and small debris
· High vacuum flow in conjunction with vacuum levels down




## Specifications

| Description | VTRA250 |
|---|---|
| Max. Vacuum level | -85 kPa |
| Open Vacuum flow | 283 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 93 g |

## Vacuum Flow

| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA250 | 85 | 5.5 | 283 | 243 | 204 | 164 | 127 |

## Air consumption

| Model | Feed Pressure (bar) | Air consumption (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|
| | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA250 | 5.5 | 113 | 170 | 235 | 275 | 340 |

# VTRA375

## Features and Strengths

· Excellent in high contamination areas where dust and small debris
· High vacuum flow in conjunction with vacuum levels down



## Specifications

| Description | VTRA375 |
|---|---|
| Max. Vacuum level | -85 kPa |
| Open Vacuum flow | 849 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 265 g |

## Vacuum Flow

| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA375 | 85 | 5.5 | 849 | 736 | 623 | 524 | 396 |

## Air consumption

| Model | Feed Pressure (bar) | Air consumption (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|
| | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA375 | 5.5 | 175 | 325 | 481 | 594 | 820 |

# VTRA500

## Features and Strengths

· Excellent in high contamination areas where dust and small debris
· High vacuum flow in conjunction with vacuum levels down



## Specifications

| Description | VTRA500 |
|---|---|
| Max. Vacuum level | -70 kPa |
| Open Vacuum flow | 1,698 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 380 g |

## Vacuum Flow

| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA500 | 85 | 5.5 | 1698 | 1330 | 1132 | 991 | 651 |

## Air consumption

| Model | Feed Pressure (bar) | Air consumption (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|
| | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA500 | 5.5 | 340 | 623 | 792 | 934 | 1274 |

# VTRA750

## Features and Strengths

· Excellent in high contamination areas where dust and small debris
· High vacuum flow in conjunction with vacuum levels down



## Specifications

| Description | VTRA750 |
|---|---|
| Max. Vacuum level | -70 kPa |
| Open Vacuum flow | 3,396 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 527 g |

## Vacuum Flow

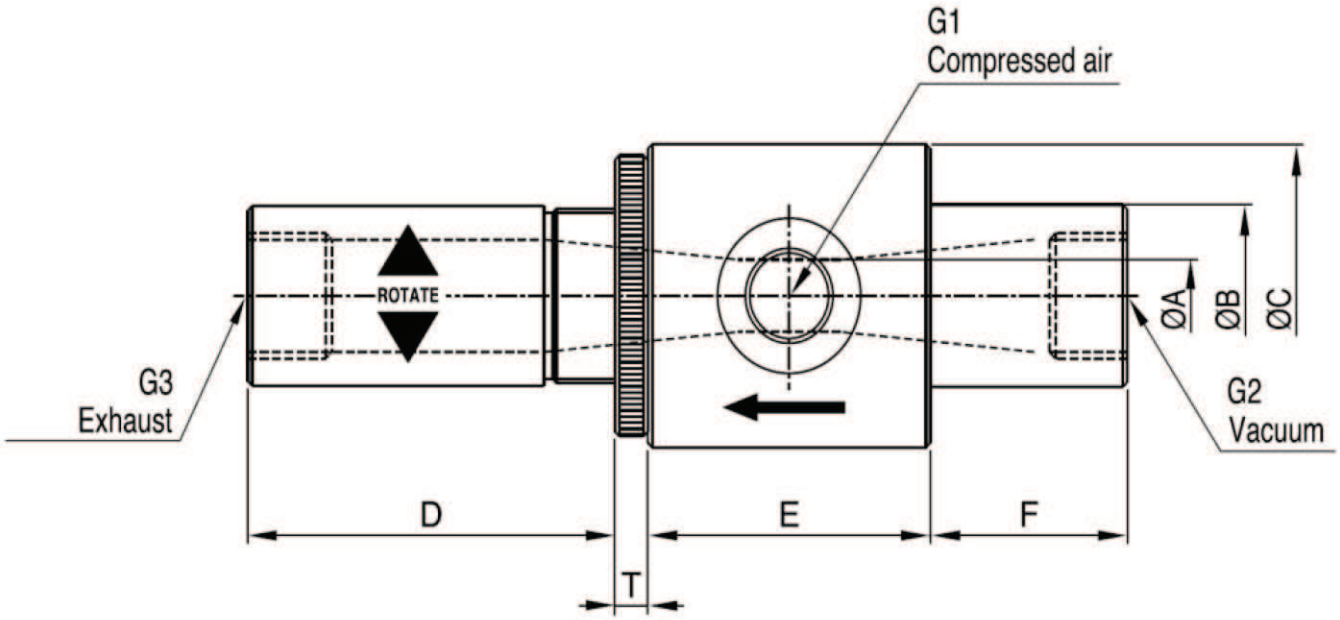
| Model | Max. vacuum (-kPa) | Feed Pressure (bar) | Vacuum flow (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA750 | 85 | 5.5 | 3396 | 2462 | 1975 | 1443 | 1132 |

## Air consumption

| Model | Feed Pressure (bar) | Air consumption (Nl/min) at different vacuum levels (-kPa) | | | | |
|---|---|---|---|---|---|---|
| | | 16.9 | 33.8 | 50.7 | 67.5 | 84.4 |
| VTRA750 | 5.5 | 651 | 872 | 1245 | 1783 | 2547 |

## Dimensions – VTRA series

[ Unit : mm ]




| Model | ØA | ØB | ØC | D | E | F | T | G1 | G2 | G3 |
|---|---|---|---|---|---|---|---|---|---|---|
| VTRA250 | 6.8 | 18.8 | 31.3 | 41.0 | 31.6 | 22.0 | 3.7 | G1/8" | G1/4" | G1/4" |
| VTRA375 | 9.6 | 25.2 | 43.5 | 69.8 | 44.4 | 37.6 | 5.0 | G3/8" | G1/2" | G1/2" |
| VTRA500 | 12.7 | 31.4 | 50.0 | 63.5 | 50.8 | 38.0 | 5.0 | G3/8" | G1/2" | G3/4" |
| VTRA750 | 19.1 | 37.8 | 56.8 | 85.7 | 50.8 | 38.2 | 55.0 | G1/2" | G3/4" | G1" |

# VTRF2-3

## Features and Strengths

· Reliable and cost effective solution for in line product transfer
· High vacuum flow in conjunction with vacuum levels down
· No need of maintenance due to straight through design




## Specifications

| Description | VTRF2-3 |
|---|---|
| Max. Vacuum level | -27 kPa |
| Open Vacuum flow | 283 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 79 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF2-3 | 27 | 490 | 88 | 170 |

# VTRF3-3

## Features and Strengths

- Reliable and cost effective solution for in line product transfer
- High vacuum flow in conjunction with vacuum levels down
- No need of maintenance due to straight through design




## Specifications

| Description | VTRF3-3 |
|---|---|
| Max. Vacuum level | -15.2 kPa |
| Open Vacuum flow | 424 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 72 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF3-3 | 15.2 | 328 | 99 | 170 |

# VTRF5-6

## Features and Strengths

· Reliable and cost effective solution for in line product transfer
· High vacuum flow in conjunction with vacuum levels down
· No need of maintenance due to straight through design



## Specifications

| Description | VTRF5-6 |
|---|---|
| Max. Vacuum level | -33.8 kPa |
| Open Vacuum flow | 849 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 154 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF5-6 | 33.8 | 362 | 396 | 679 |

# VTRF7-6

## Features and Strengths

- Reliable and cost effective solution for in line product transfer
- High vacuum flow in conjunction with vacuum levels down
- No need of maintenance due to straight through design



## Specifications

| Description | VTRF7-6 |
|---|---|
| Max. Vacuum level | -27 kPa |
| Open Vacuum flow | 1,698 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 373 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF7-6 | 27.0 | 326 | 792 | 1,358 |

# VTRF15-3

## Features and Strengths

· Reliable and cost effective solution for in line product transfer
· High vacuum flow in conjunction with vacuum levels down
· No need of maintenance due to straight through design



## Specifications

| Description | VTRF15-3 |
|---|---|
| Max. Vacuum level | -4.4 kPa |
| Open Vacuum flow | 4,670 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 589 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF15-3 | 4.4 | 224 | 396 | 679 |

# VTRF15-6

## Features and Strengths

- Reliable and cost effective solution for in line product transfer
- High vacuum flow in conjunction with vacuum levels down
- No need of maintenance due to straight through design



## Specifications

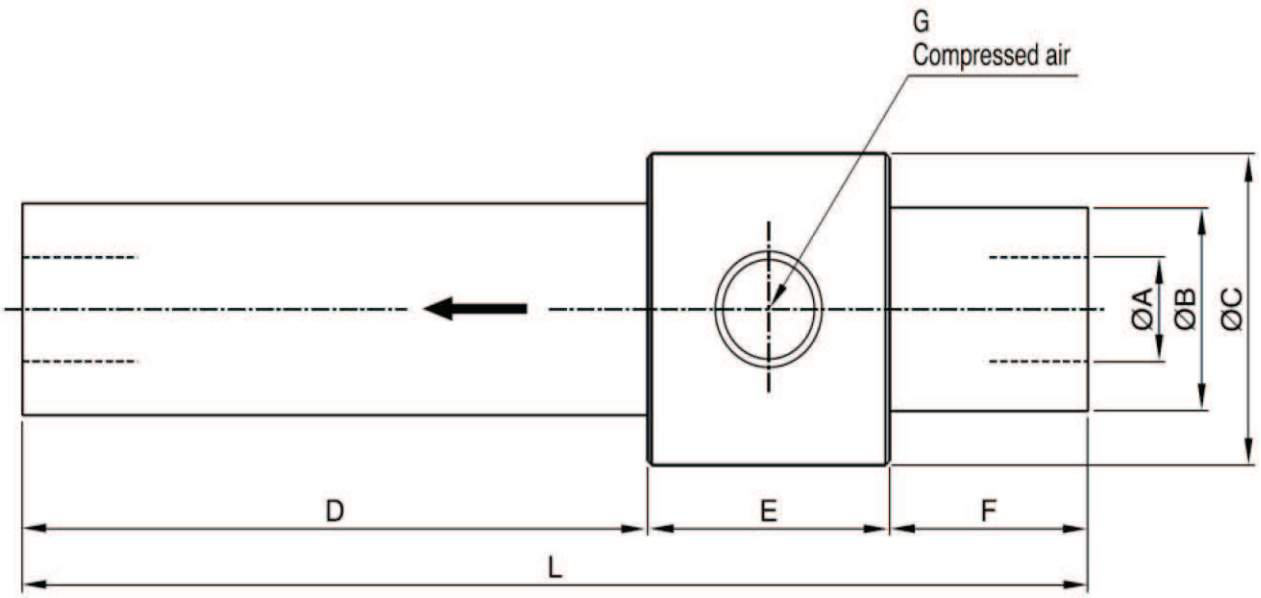
| Description | VTRF15-6 |
|---|---|
| Max. Vacuum level | -8.5 kPa |
| Open Vacuum flow | 5,660 Nl/min |
| Max. Feed pressure | 7 bar |
| Temperature | -20 ~ 120 ℃ |
| Weight | 591 g |

## Performance data

| Model | Max. vacuum (-kPa) | Air velocity (ft/sec) | Air consumption (Nl/m) | |
|---|---|---|---|---|
| | | | 2.8bar | 5.5bar |
| VTRF15-6 | 8.5 | 272 | 792 | 1,358 |

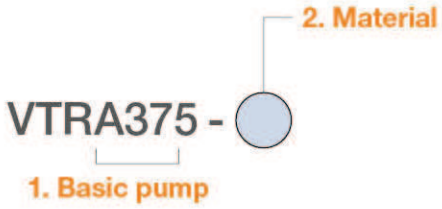
## Dimensions – VTRF series

[ Unit : mm ]




| Model | ØA | ØB | ØC | D | E | F | L | G |
|---|---|---|---|---|---|---|---|---|
| VTRF2-3 | 6.4 | 18.4 | 31.5 | 45.0 | 24.9 | 19.0 | 88.9 | G1/8" |
| VTRF3-3 | 9.5 | 18.8 | 31.3 | 45.3 | 25.5 | 18.2 | 89.0 | G1/8" |
| VTRF5-6 | 12.6 | 24.5 | 37.6 | 82.0 | 31.7 | 26.0 | 139.7 | G1/4" |
| VTRF7-6 | 19.0 | 31.8 | 50.0 | 101.8 | 50.6 | 38.0 | 190.4 | G3/8" |
| VTRF15-3 | 38.2 | 49.6 | 69.0 | 101.4 | 50.8 | 38.2 | 190.4 | G3/8" |
| VTRF15-6 | 38.2 | 49.6 | 69.0 | 101.4 | 50.8 | 38.2 | 190.4 | G3/8" |

## Build an Ordering No.




| 1. Basic pump | Description | Symbol |
|---|---|---|
| | Conveying pump - VTRA series, Adjustable, G1/4" vacuum port, G1/4" exhaust port | VTRA250 |
| | Conveying pump - VTRA series, Adjustable, G1/2" vacuum port, G1/2" exhaust port | VTRA375 |
| | Conveying pump - VTRA series, Adjustable, G1/2" vacuum port, G3/4" exhaust port | VTRA500 |
| | Conveying pump - VTRA series, Adjustable, G3/4" vacuum port, G1" exhaust port | VTRA750 |
| | Conveying Pump - VTRF Series, 0.25" inlet dia., G1/8" air supply | VTRF2-3 |
| | Conveying Pump - VTRF Series, 0.37" inlet dia., G1/8" air supply | VTRF3-3 |
| | Conveying Pump - VTRF Series, 0.50" inlet dia., G1/4" air supply | VTRF5-6 |
| | Conveying Pump - VTRF Series, 0.75" inlet dia., G3/8" air supply | VTRF7-6 |
| | Conveying Pump - VTRF Series, 1.50" inlet dia., G3/8" air supply | VTRF15-3 |
| | Conveying Pump- VTRF Series, 1.50" inlet dia., G3/8" air supply | VTRF15-6 |

| 2. Material | Description | Symbol |
|---|---|---|
| | Aluminum | AL |
| | Stainless | SS |

# ACCESSORIES

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