



# Dry Compressing Vacuum Pumps

Dry Com

CLAWVAC

Claw Vacuum and Overpressure Pumps

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## Dry Compressing Vacuum Pumps

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# Products

## Dry Vacuum Claw Pumps CLAWVAC CP 65 to CP 300 Over-Pressure Claw Pumps CLAWVAC OP 150 to OP 300



Claw vacuum pumps CLAWVAC CP 150 and CP 300

In the CLAWVAC, a claw rotor pair rotates completely contactless and wearfree in the cylinder. The CLAWVAC differentiates itself from conventional claw pumps mainly through its material selection. Stainless steel rotors as well as the corrosion-resistant coated vacuum chamber also prove themselves under very harsh process conditions and contribute to a reliable operation.

The systems offer great advantages for a wide range of rough vacuum and over-pressure applications.

The pumps design enables extreme robustness, especially for challenging applications which include handling of particle or vapor contaminated gases.

### Advantage to the User

- **Oil free compression room**
  - No oil migration into process
  - No oil contamination
- **Air cooled**
  - Extremely efficient air cooling for lowest operation temperature
  - No demand for expensive cooling water
  - Performance independent from water temperature
- **Flexible**
  - Variable speed drive (VSD) compatible
  - Compact design with small footprint
  - Cool running
- **Environment friendly**
  - Market leading low noise level
  - Lowest power consumption
  - Up to 50% energy saving by operation with VSD
- **Safe operation**
  - Continuous operation at any inlet pressure without overheating
  - Most robust bearing and seal design

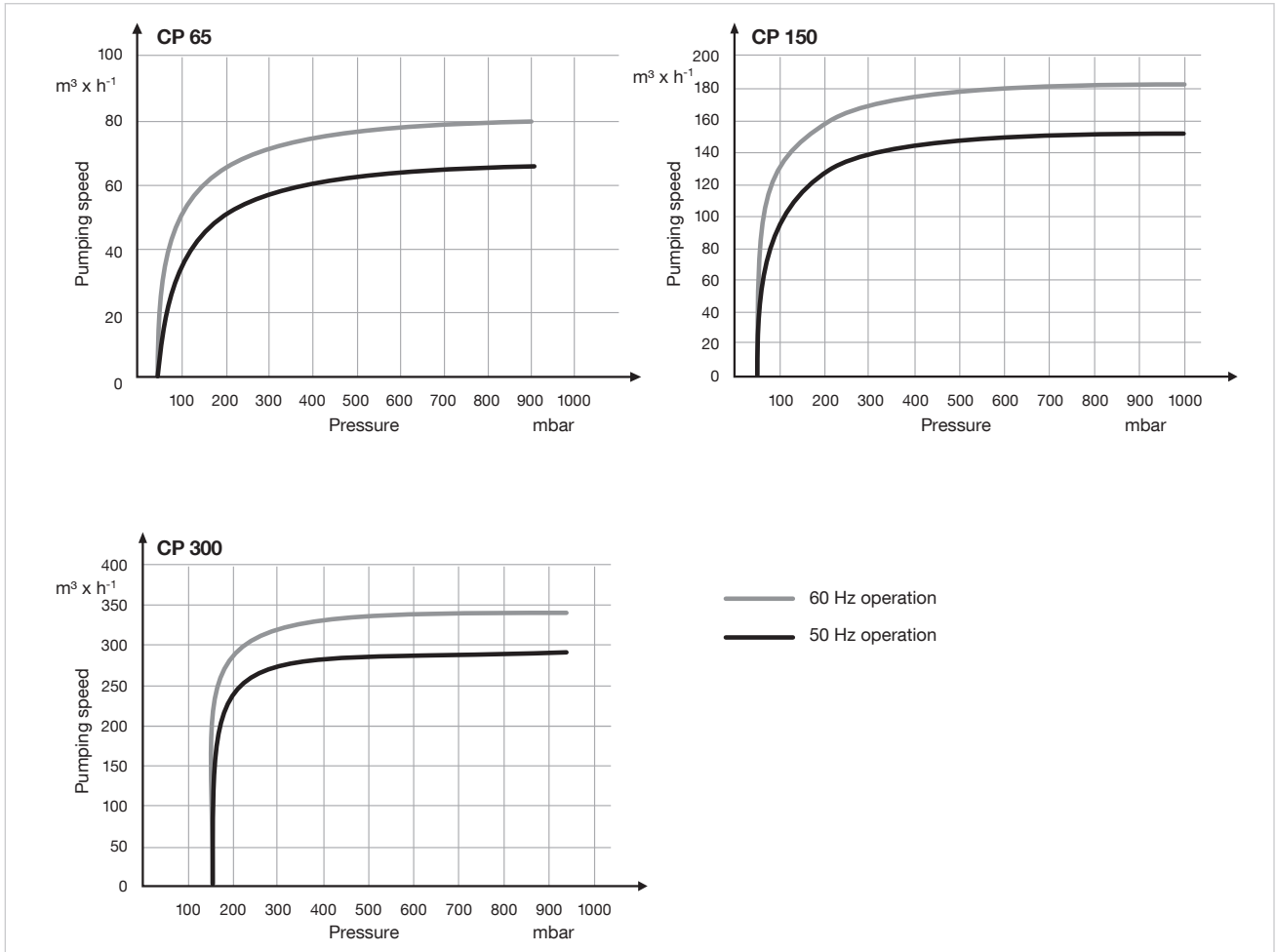
### Typical Applications

- **Food Processing**
  - Bottling
  - Dairy products (e.g. milking)
  - Vacuum conveying (e.g. in slaughterhouse)
  - Beverage production
- **Food Packaging**
  - Thermoforming of foil container
  - Tray sealing
  - Modified Atmosphere Packaging (MAP)
- **Woodworking**
  - Holding & lifting
  - CNC router
  - Drying & impregnation
- **Material Transport & Holding**
  - Print & paper (press & post-press)
  - Vacuum conveying
  - Vacuum clamping
- **Degassing**
  - Li-battery slurry
  - Ceramics & bricks
- **Thermoforming**
  - Deep drawing of bath tubs

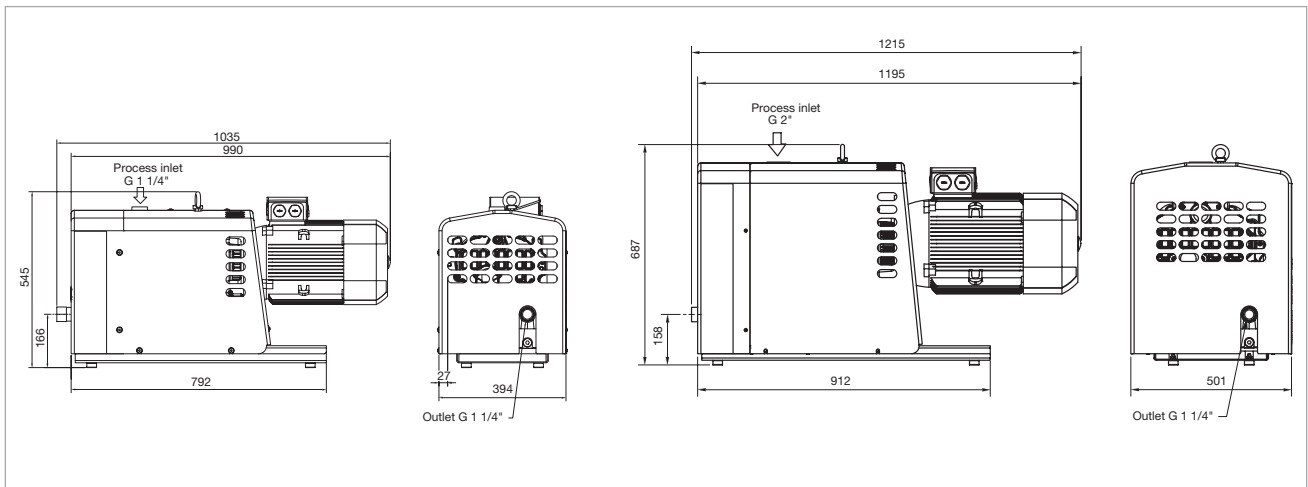
- **Plastic Industry**
  - Composite manufacturing
  - Granulate conveying
  - Extruder degassing (e.g. PP, PE, PS)
  - Gluing
- **Environmental Engineering**
  - Sewage degassing
  - Biogas production
  - Soil remediation



Corrosion resistant stainless steel claws and coated pumping chamber



Pumping speed characteristics CP 65, CP 150 and CP 300 right



Dimensional drawing – CP 65 and CP / OP 150 left, CP / OP 300 right (dimensions in mm)

## Technical Data

## CLAWVAC

|                                       |             |                   | CP 65   | CP 150  | CP 300  |
|---------------------------------------|-------------|-------------------|---|---|---|
| Pumping speed                         | 50 Hz       | m <sup>3</sup> /h | 65  | 150   | 300   |
|                                       | 60 Hz       | m <sup>3</sup> /h | 79  | 184   | 347   |
| Ultimate vacuum                       | mbar / Torr |                   | 50 / 37.5   | 50 / 37.5   | 140 / 105                                     |
| Continuous operation range            | mbar / Torr |                   | 50 – 1000 / 37.5 – 750                            | 50 – 1000 / 37.5 – 750                            | 140 – 1000 / 105 – 750                        |
| Permissible ambient temperature range | °C / °F     |                   | 0 – 40 / 32 – 104                                 |   |   |
| Connections                           |             |                   | Inlet: G 1 1/4" or NPT<br>Outlet: G 1 1/4" or NPT | Inlet: G 1 1/4" or NPT<br>Outlet: G 1 1/4" or NPT | Inlet: G 2" or NPT<br>Outlet: G 1 1/4" or NPT |
| Motor size                            | 50 Hz       | kW                | 1.8   | 4.0   | 6.2   |
|                                       | 60 Hz       | kW                | 2.2   | 3.7   | 7.5   |
| Operation range                       | Hz          |                   | 20 – 60   |   |   |
| Noise level (50 Hz / 60 Hz)           | dB(A)       |                   | 66 / 77   | 75 / 80   | 77 / 84                                       |
| Weight                                | kg          |                   | 120   | 160   | 252   |
| Motor protection class                | IP          |                   | 55  |   |   |

## Ordering Information

## CLAWVAC

|                     | CP 65            | CP 150           | CP 300           |
|---------------------|------------------|------------------|------------------|
|                     | Part. No.        | Part. No.        | Part. No.        |
| 230 V 50 Hz 3Ph     | <b>178065V01</b> | <b>178150V01</b> | <b>178300V01</b> |
| 380 V 60 Hz 3Ph     | <b>178065V02</b> | <b>178150V02</b> | <b>178300V02</b> |
| 400 V 50 Hz 3Ph     | <b>178065V03</b> | <b>178150V03</b> | <b>178300V03</b> |
| 575 V 60 Hz 3Ph     | <b>178065V04</b> | <b>178150V04</b> | <b>178300V04</b> |
| 200 V 60 Hz 3Ph     | <b>178065V05</b> | <b>178150V05</b> | <b>178300V05</b> |
| 460 V 60 Hz 3Ph     | <b>178065V06</b> | <b>178150V06</b> | <b>178300V06</b> |
| 230/460 V 60 Hz 3Ph | <b>178065V07</b> | <b>178150V07</b> | <b>178300V07</b> |
| 200 V 50 Hz 3Ph     | <b>178065V08</b> | <b>178150V08</b> | <b>178300V08</b> |
| 230 V 60 Hz 3Ph     | <b>178065V09</b> | <b>178150V09</b> | <b>178300V09</b> |
| 500 V 50 Hz 3Ph     | <b>178065V10</b> | <b>178150V10</b> | <b>178300V10</b> |

## Technical Data

## CLAWVAC

|                                       |               |     | OP 150  | OP 300  |
|---------------------------------------|---------------|-----|---|---|
| Max. volume flow                      | 50 Hz         | l/s | 30.2  | 66  |
|                                       | 60 Hz         | l/s | 40  | 82  |
| Max. over-pressure                    | bar(g) / psi  |     | 2.5 / 36  |   |
| Permissible ambient temperature range | °C / °F       |     | 0 – 40 / 32 – 104                                 |   |
| Connections                           |               |     | Inlet: G 1 1/4" or NPT<br>Outlet: G 1 1/4" or NPT | Inlet: G 2" or NPT<br>Outlet: G 1 1/4" or NPT |
| Motor size                            | 50 Hz / 60 Hz | kW  | 14  | 6.2   |
| Operation range                       | Hz            |     | 20 – 60   |   |
| Noise level (50 Hz / 60 Hz)           | dB(A)         |     | 75 / 80   | 77 / 82                                       |
| Weight                                | kg            |     | 160   | 252   |
| Motor protection class                | IP            |     | 55  |   |

## Ordering Information

## CLAWVAC

|                     | OP 150           | OP 300           |
|---------------------|------------------|------------------|
|                     | Part. No.        | Part. No.        |
| 230 V 50 Hz 3Ph     | <b>178150P01</b> | <b>178300P01</b> |
| 380 V 60 Hz 3Ph     | <b>178150P02</b> | <b>178300P02</b> |
| 400 V 50 Hz 3Ph     | <b>178150P03</b> | <b>178300P03</b> |
| 575 V 60 Hz 3Ph     | <b>178150P04</b> | <b>178300P04</b> |
| 200 V 60 Hz 3Ph     | <b>178150P05</b> | <b>178300P05</b> |
| 460 V 60 Hz 3Ph     | <b>178150P06</b> | <b>178300P06</b> |
| 230/460 V 60 Hz 3Ph | <b>178150P07</b> | <b>178300P07</b> |
| 200 V 50 Hz 3Ph     | <b>178150P08</b> | <b>178300P08</b> |
| 230 V 60 Hz 3Ph     | <b>178150P09</b> | <b>178300P09</b> |
| 500 V 50 Hz 3Ph     | <b>178150P10</b> | <b>178300P10</b> |