



Item no: VGS™5010\_BF110P

## VGS™5010 BF110P

Piab VGS™ – A product design where different suction cups are integrated with vacuum cartridges based on the patented COAX® technology. The “vacuum gripper” makes selection, sizing and installation of a vacuum system easier. With a VGS™ you will enjoy the benefits of a more cost-efficient and reliable... decentralized vacuum system.

- Patented COAX® technology.
- The suction cups are specially designed for handling larger parts, such as car body sheets.
- The soft, flexible lip makes the cup suitable for curved or uneven surfaces and the dual hardness version, PU30/60, is also recommended for rough or rugged surfaces to prevent micro-leakage, which can occur on plastic or composite work pieces.
- Available with a two or three-stage COAX® cartridge MIDI. Choose an Si cartridge for extra vacuum flow, a Pi cartridge for high performance at low feed pressure or an Xi cartridge when high flow and deep vacuum is needed.
- The three-stage cartridge will give extra high initial vacuum flow, suitable in high speed applications.
- Easy installation and flexible positioning with several mounting options.

### General

|                         |                         |
|-------------------------|-------------------------|
| Material                | PU, PA, PP, SS, AL, NBR |
| Noise level             | 73 - 83 dBA             |
| Temperature             | 10 - 50 °C              |
| Weight                  | 373 - 548 g             |
| Suction cup model       | BF110P PU30 PU60        |
| Movement, vertical max. | 27.4 mm                 |
| Curve radius, min.      | 55 mm                   |
| Suction cup model       | BF110P PU60             |
| Curve radius, min.      | 70 mm                   |

Performance

|                     |         |
|---------------------|---------|
| Feed pressure, max. | 0.7 MPa |
|---------------------|---------|

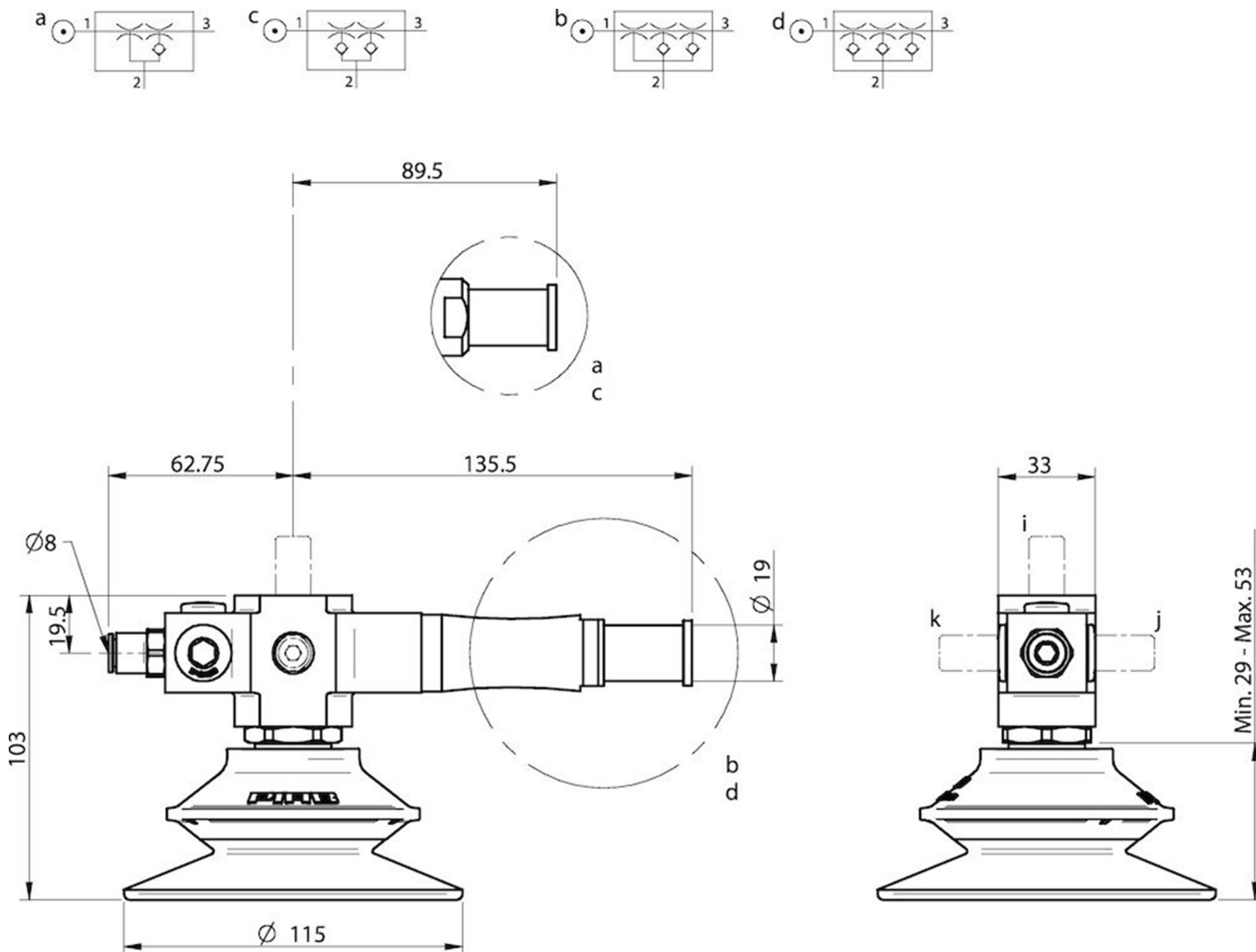
Performance - lifting forces

| BF110P PU30 PU60 |  |  |  |
|------------------|--|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 20 -kPa          |  | 128 N                                                                             | 106 N                                                                               |
| 60 -kPa          |  | 229 N                                                                             | 210 N                                                                               |
| 90 -kPa          |  | 225 N                                                                             | 246 N                                                                               |
| BF110P PU60      |  |  |  |
| 20 -kPa          |  | 161 N                                                                             | 123 N                                                                               |
| 60 -kPa          |  | 334 N                                                                             | 231 N                                                                               |
| 90 -kPa          |  | 293 N                                                                             | 305 N                                                                               |

| Feed pressure           | Air consumption | Vacuum flow (NI/s) at different vacuum levels (-kPa) |     |     |     |      |      |      |      |      |  | Max vacuum |
|-------------------------|-----------------|------------------------------------------------------|-----|-----|-----|------|------|------|------|------|--|------------|
| MPa                     | NI/s            | 0                                                    | 10  | 20  | 30  | 40   | 50   | 60   | 70   | 80   |  | -kPa       |
| MIDI Pi48-2 0,30 - 0.3  | 2               | 2.8                                                  | 2.5 | 1.8 | 1.1 | 0.65 | 0.5  | 0.35 | 0.25 | 0.1  |  | 90         |
| MIDI Pi48-3 0,31 - 0.31 | 2.05            | 5.6                                                  | 2.5 | 1.8 | 1.1 | 0.65 | 0.5  | 0.35 | 0.25 | 0.1  |  | 90         |
| MIDI Si32-2 0,60 - 0.6  | 1.75            | 3.3                                                  | 3   | 2.6 | 1.7 | 0.9  | 0.6  | 0.5  | 0.35 | 0    |  | 75         |
| MIDI Si32-3 0,60 - 0.6  | 1.75            | 6                                                    | 3.5 | 2.6 | 1.7 | 0.9  | 0.6  | 0.5  | 0.35 | 0    |  | 75         |
| MIDI Xi40-2 0,45 - 0.45 | 1.83            | 2.8                                                  | 2.3 | 1.6 | 1   | 0.73 | 0.58 | 0.43 | 0.32 | 0.18 |  | 95         |
| MIDI Xi40-3 0,45 - 0.45 | 1.83            | 5.9                                                  | 3   | 2   | 1.3 | 0.73 | 0.58 | 0.43 | 0.32 | 0.18 |  | 95         |

| Feed pressure           | Air consumption | Evacuation time (s/l) to reach different vacuum levels (-kPa) |       |       |       |       |       |      |       |     |  | Max vacuum |
|-------------------------|-----------------|---------------------------------------------------------------|-------|-------|-------|-------|-------|------|-------|-----|--|------------|
| MPa                     | NI/s            | 10                                                            | 20    | 30    | 40    | 50    | 60    | 70   | 80    | 90  |  | -kPa       |
| MIDI Pi48-2 0,30 - 0.3  | 2               | 0.038                                                         | 0.084 | 0.153 | 0.267 | 0.441 | 0.677 | 1.01 | 1.581 | 0   |  | 90         |
| MIDI Pi48-3 0,31 - 0.31 | 2.05            | 0.02                                                          | 0.06  | 0.12  | 0.25  | 0.45  | 0.7   | 1    | 1.6   | 4   |  | 90         |
| MIDI Si32-2 0,60 - 0.6  | 1.75            | 0.03                                                          | 0.07  | 0.1   | 0.18  | 0.33  | 0.53  | 0.8  | 0     | 0   |  | 75         |
| MIDI Si32-3 0,60 - 0.6  | 1.75            | 0.02                                                          | 0.05  | 0.1   | 0.18  | 0.33  | 0.53  | 0.8  | 0     | 0   |  | 75         |
| MIDI Xi40-2 0,45 - 0.45 | 1.83            | 0.04                                                          | 0.09  | 0.17  | 0.28  | 0.44  | 0.63  | 0.9  | 1.3   | 2.3 |  | 95         |
| MIDI Xi40-3 0,45 - 0.45 | 1.83            | 0.022                                                         | 0.062 | 0.12  | 0.22  | 0.37  | 0.57  | 0.84 | 1.2   | 2.2 |  | 95         |

| Feed pressure          | Air consumption | Blow flow (NI/s) at different pressure levels (-kPa) |      |      |      |     |      |      |      |      |  | Max vacuum |
|------------------------|-----------------|------------------------------------------------------|------|------|------|-----|------|------|------|------|--|------------|
| MPa                    | NI/s            | 10                                                   | 20   | 30   | 40   | 50  | 60   | 70   | 80   | 90   |  | -kPa       |
| MIDI Si32-2 0,60 - 0.6 | 1.75            | 5.05                                                 | 4.83 | 4.25 | 3.61 | 3.3 | 2.89 | 2.65 | 2.35 | 1.97 |  | 75         |
| MIDI Si32-3 0,60 - 0.6 | 1.75            | 7.8                                                  | 5.4  | 4.6  | 3.8  | 3.3 | 3.1  | 2.7  | 2.3  | 1.8  |  | 75         |



Values specified in the data sheet are tested at:

- Room temperature: (20°C [68°F] ± 3°C [5.5°F])
- Standard atmosphere: (101.3 [29.9 inHg] ± 1.0 kPa [0.3 inHg])
- Relative humidity: 0-100%
- Compressed air quality: DIN ISO 8573-1 class 4