

# Datasheet

## Suction cup BFF60P Polyurethane 55/60, G1/4" female

Item number: BFF60P.4R.G75W



- Special designed friction cups for oily surfaces, such as sheets in metal forming processes.
- Normal wear on friction cup will not affect the long term shear force performance.
- Best choice if  $> 0.1\text{g/m}^2$  press oil is used on the sheet.
- Thanks to the strong grip on oily surfaces, the suction cups can withstand high shear forces, typically 2–4 times more than corresponding conventional suction cups.
- The "BFF" design is suitable for uneven/curved surfaces or if level compensation is needed, for example in de-stacking applications.
- The flat inner support gives stability during movement in any orientation.
- DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

### Technical data

| Description             | Unit            | Value                   |
|-------------------------|-----------------|-------------------------|
| Suction cup shape       | -               | Bellows                 |
| Application             | -               | Oily sheet metal        |
| Suction cup design      | -               | Round                   |
| Characteristics         | -               | Oily sheet metal        |
| Material                | -               | Polyurethane (PU)       |
| Weight, min.            | oz              | 2.36                    |
| Suction cup model       | -               | BFF                     |
| Volume                  | in <sup>3</sup> | 1.22                    |
| Height                  | in              | 1.42                    |
| Outer diameter, min.    | in              | 2.42                    |
| Fitting size            | -               | 1/4"                    |
| Fitting style           | -               | Female                  |
| Fitting type            | -               | G-thread                |
| Suction cup model       | -               | BFF60P Dry metal sheet  |
| Movement, vertical max. | in              | 0.39                    |
| Curve radius, min.      | in              | 1.38                    |
| Suction cup model       | -               | BFF60P Oily steel plate |
| Movement, vertical max. | in              | 0.39                    |
| Curve radius, min.      | in              | 1.38                    |

### Performance - Lifting forces

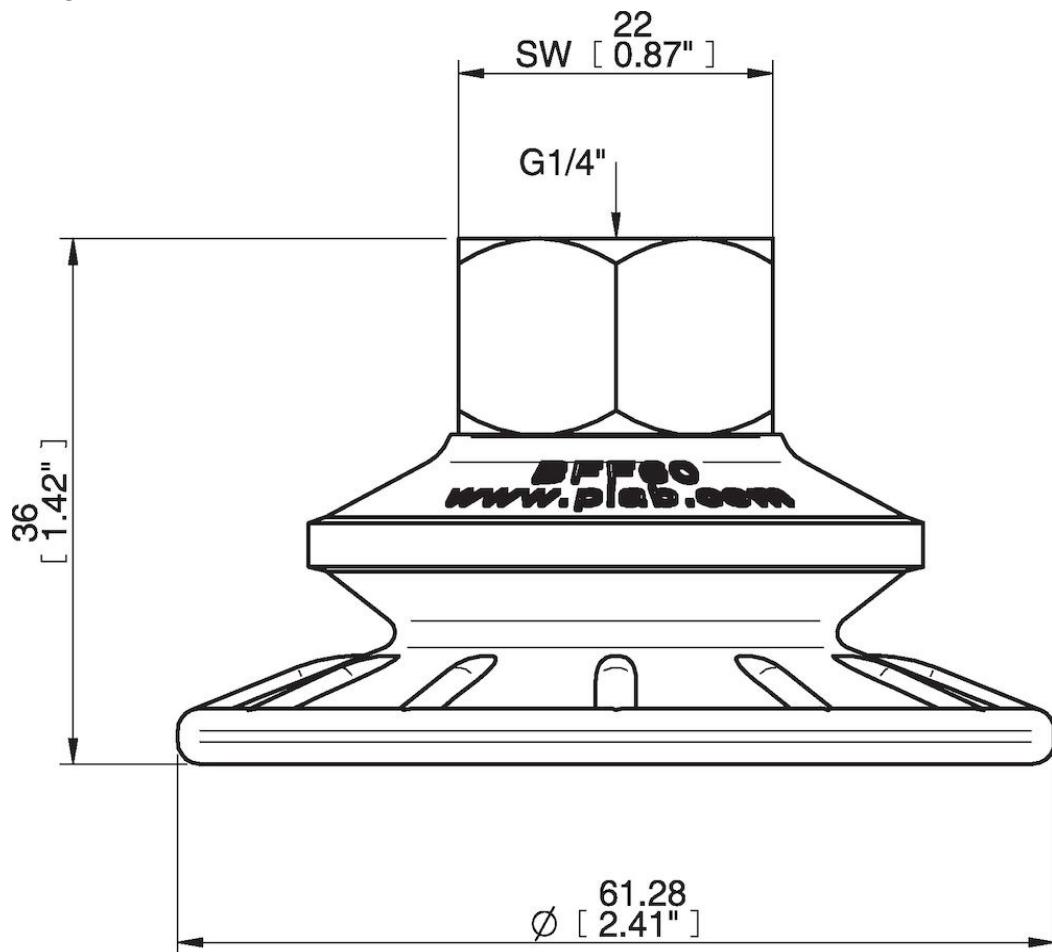
|                         | Vertical (lb) | Parallel (lb) |
|-------------------------|---------------|---------------|
| BFF60P Dry metal sheet  |               |               |
| 17.72 -inHg             | 17.31         | 20.23         |
| 26.58 -inHg             | 25.18         | 27.43         |
| BFF60P Oily steel plate |               |               |
| 17.72 -inHg             | 18.43         | 17.086        |
| 26.58 -inHg             | 23.83         | 20.91         |

| <b>Material</b>        |                     |                     |
|------------------------|---------------------|---------------------|
| Name                   | Polyurethane (PU55) | Polyurethane (PU60) |
| Color                  | Orange              | Green transparent   |
| Temperature, min.   °F | 50.0                | 50.0                |
| Temperature max.   °F  | 122.0               | 122.0               |
| Hardness   °Shore A    | 55                  | 60                  |

#### **Material resistance**

|                    |           |           |
|--------------------|-----------|-----------|
| Alcohol            | n/a       | n/a       |
| Concentrated acids | Fair      | Fair      |
| Ethanol            | Fair      | Fair      |
| Hydrolysis         | Fair      | Fair      |
| Methanol           | Poor      | Poor      |
| Oil                | Excellent | Excellent |
| Oxidation          | Poor      | Poor      |
| Gasoline           | Fair      | Fair      |
| Wear resistance    | Excellent | Excellent |
| Weather and ozone  | Excellent | Excellent |

#### **Dimensional drawings**



**Values specified in this data sheet are tested at (unless otherwise stated):**

- 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 20-70%.
- Compressed air quality, DIN ISO 8573-1 class 4.