

# Datasheet

## Suction cup BFF30P Polyurethane 55/60, 3/8" NPT female

Item number: BFF30P.4R.N50W



- 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 > 0.1g/m<sup>2</sup> 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	1.35
Suction cup model	-	BFF
Volume	in <sup>3</sup>	0.31
Height	in	1.13
Outer diameter, min.	in	1.18
Outer diameter, actuated	in	1.20
Fitting size	-	3/8"
Fitting style	-	Female
Fitting type	-	NPT-thread
Suction cup model	-	BFF30P Dry metal sheet
Movement, vertical max.	in	0.21
Curve radius, min.	in	0.59
Suction cup model	-	BFF30P Oily steel plate
Movement, vertical max.	in	0.21
Curve radius, min.	in	0.59

### Performance - Lifting forces

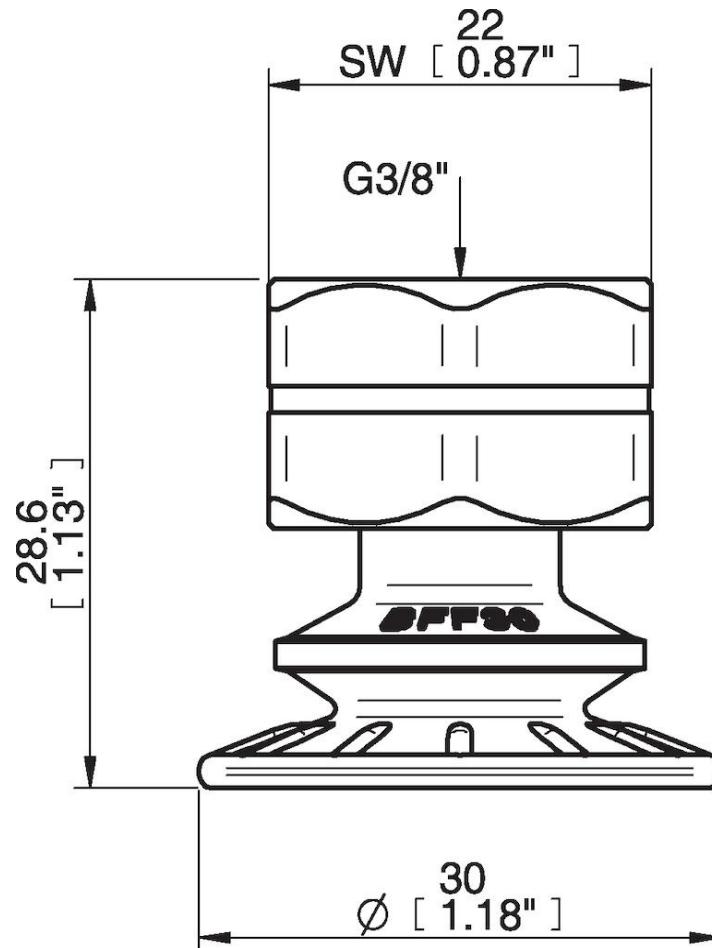
	Vertical (lb)	Parallel (lb)
BFF30P Dry metal sheet		
17.72 -inHg	5.40	2.47
26.58 -inHg	6.070	3.035
BFF30P Oily steel plate		
17.72 -inHg	5.17	1.24
26.58 -inHg	6.74	1.75

<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.