

Datasheet

Suction cup BFF110TP Polyurethane 55/60/30. 3/8" NPT female with mesh filter

Item number: BFF110TP.5S.N49MR



- 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	5.66
Suction cup model	-	BFFT
Height	in	2.60
Outer diameter, min.	in	4.53
Fitting size	-	3/8"
Fitting option	-	Filter mesh
Fitting style	-	Female
Fitting type	-	NPT-thread
Length, actuated	in	4.57
Fitting material	-	Al
Suction cup model	-	BFF110P Dry metal sheet
Movement, vertical max.	in	0.83
Curve radius, min.	in	3.74
Suction cup model	-	BFF110P Oily steel plate
Movement, vertical max.	in	0.83
Curve radius, min.	in	3.74

Performance - Lifting forces

	Vertical (lb)	Parallel (lb)
BFF110P Dry metal sheet 17.72 -inHg	62.72	66.99
26.58 -inHg	84.75	77.78
BFF110P Oily steel plate 17.72 -inHg	63.85	52.83
26.58 -inHg	77.56	56.88

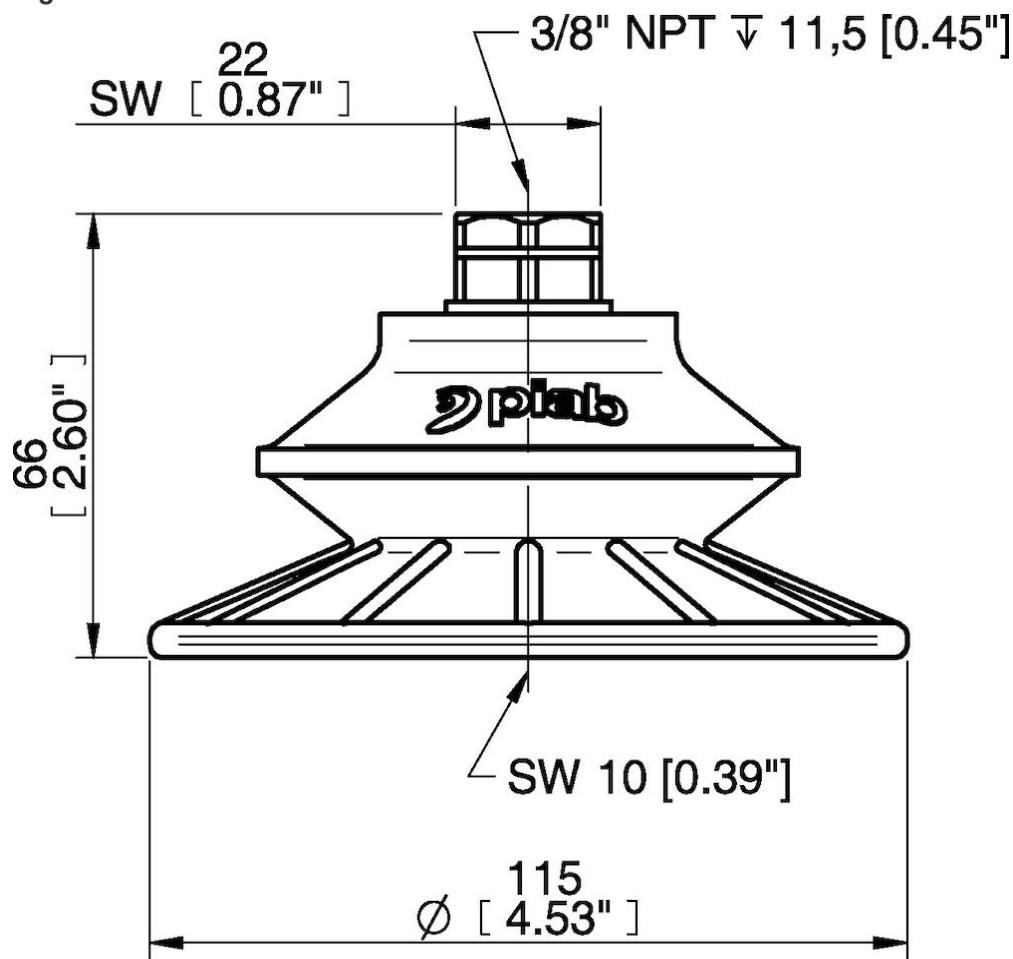
Material

Name	Polyurethane (PU30)	Polyurethane (PU55)	Polyurethane (PU60)
Color	Yellow	Orange	Orange
Temperature, min. °F	50.0	50.0	50.0
Temperature max. °F	122.0	122.0	122.0
Hardness °Shore A	30	55	60

Material resistance

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

Dimensional drawings



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

- Room temperature (20°C [68°F] \pm 3°C [5.5°F]).
- Standard atmosphere (101.3 [29.9 inHg] \pm 1.0 kPa [0.3 inHg]).
- Relative humidity 20-70%.
- Compressed air quality, DIN ISO 8573-1 class 4.