piab Evolving automation



Item no: 0206690

Suction cup BFF80TP Polyurethane 55/60/30 G3/8" female with mesh filter

The BFF-TP design is suitable for oily surfaces, 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.Special designed friction cups for oily surfaces, such as sheets in metal forming... processes. 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.

- Special designed friction cups for thin (0.6-0.8 mm) oily metal sheets, such as outer body car parts in a press-to press forming process.
- Long lasting material, normal wear on friction cup will not affect the long term grip performance.
- The suction cups can withstand high shear forces, typically 3–5 times more than corresponding conventional suction cups.
- Best choice if > 0.1g/m2 press oil is used on the sheet but also a great choice for dry metal sheets.
- The "BFF-TP" design is suitable for thin flat or uneven/curved surfaces and if level compensation is needed.
- The flat inner support, made of dual hardness, gives stability and good grip 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 and has a fantastic elastic memory, even after hundreds of thousands of cycle.

General

Application	Oily sheet metal
Suction cup shape	Bellows
Material	PU30, PU55, PU60
Suction cup model	BFFT
Weight	71.3 g
Suction cup model	BFF80P Dry metal sheet
Specification	Dry metal sheet
Movement, vertical max.	14 mm
Curve radius, min.	50 mm
Suction cup model	BFF80P Oily steel plate
Specification	Oily steel plate

Fitting

Material	Al
Fitting option	Filter mesh
Fitting size	3/8"
Fitting style	Female
Fitting type	G-thread

Dimension

Height	49.5 mm
Length, actuated	86.7 mm
Outer diameter	85.3 mm

Performance - lifting forces

BFF80P Dry metal sheet	↑	→
60 -kPa	176 N	201 N
90 -kPa	236 N	240 N
BFF80P Oily steel plate	↑	→
60 -kPa	174 N	110 N
90 -kPa	207 N	160 N

Material

Name	PU60	PU55	PU30
Colour	Orange	Orange	Yellow
Temperature	10 - 50 °C	10 - 50 °C	10 - 50 °C
Hardness	60 °Shore A	55 °Shore A	30 °Shore A

	PU60	PU55	PU30
Alcohol	n/a	n/a	n/a
Concentrated acids	+	+	+
Ethanol	+	+	+
Hydrolysis	+	+	+
Methanol	-	-	-
Oil	+++	+++	+++
Oxidation	-	-	-
Petrol	+	+	+
Wear resistance	+++	+++	+++
Weather and ozone	+++	+++	+++

Dimensional drawings

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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