Suction cups/grippers DURAFLEX® Friction



OCF20x80P, OCF30x90P, OCF40x110P



- 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/m² 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 "OCF" design is suitable for oblong objects with slightly curved or flat surfaces, such as those encountered with body parts in the automotive industry.
- ➤ Fitting option, male G3/8", with a swivel function prior to the locking operation, for easy positioning of the oval cup.
- ▶ 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.

Lifting forces & technical data

| Model | Material to be handled | Lifting force vertical to the surface, N, at vacuum level | | Friction/Shear forces parallel to the surface, N, at vacuum level | | Volume | Min. curve radius | Weight |
|------------|---------------------------|---|---------|---|---------|-----------------|-------------------|--------|
| | | 60 -kPa | 90 -kPa | 60 -kPa | 90 -kPa | cm ³ | mm | g |
| OCF20x80P | Oily steel plate | 82 | 90 | 35 | 48 | 15 | 20 | 24 |
| OCF30x90P | Oily steel plate | 115 | 159 | 51 | 74 | 17 | 25 | 24 |
| OCF40x110P | Oily steel plate | 185 | 246 | 54 | 78 | 34 | 42 | 55 |

Values valid for steel sheet with surface finish Ra 1 and 2-3g/m2 of press oil.

Material specifications

| Material | Colour | Hardness, °Shore A | Temperature range, °C |
|--------------------|-------------------|--------------------|-----------------------|
| Polyurethane, PU55 | Orange | 55 | 10–50 |
| Polyurethane, PU60 | Green transparent | 60 | 10–50 |

Material resistance

| Wear resistance | Oil | Weather & ozone | Hydrolysis | Petrol | Concentrated acids | Ethanol | Methanol | Oxidation |
|-----------------|-----------|-----------------|------------|--------|--------------------|---------|----------|-----------|
| Excellent | Excellent | Excellent | Fair** | Fair | Fair** | Fair | Poor | Poor |

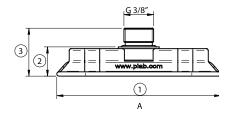
^{**}Please contact Piab.

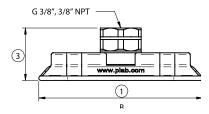
Suction cups/grippers DURAFLEX® Friction



Ordering information

| | Complete suction cups | Code | Art. No. |
|---|--|--------------------|----------|
| Α | Suction cup OCF20x80P Polyurethane 55/60, G3/8" male | OCF20x80P.5R.G41M | 0121847 |
| В | Suction cup OCF20x80P Polyurethane 55/60, 3/8" NPT female | OCF20x80P.5R.N47W | 0121859 |
| В | Suction cup OCF20x80P Polyurethane 55/60, G3/8" female | OCF20x80P.5R.G45W | 0122455 |
| Α | Suction cup OCF30x90P Polyurethane 55/60, G3/8" male | OCF30X90P.5R.G41M | 0122456 |
| В | Suction cup OCF30x90P Polyurethane 55/60, 3/8" NPT female | OCF30X90P.5R.N47W | 0122459 |
| В | Suction cup OCF30x90P Polyurethane 55/60, G3/8" female | OCF30X90P.5R.G45W | 0121786 |
| Α | Suction cup OCF40x110P Polyurethane 55/60, G3/8" male | OCF40X110P.5R.G40M | 0122457 |
| В | Suction cup OCF40x110P Polyurethane 55/60, 3/8" NPT female | OCF40X110P.5R.N48W | 0121865 |
| В | Suction cup OCF40x110P Polyurethane 55/60, G3/8" female | OCF40X110P.5R.G46W | 0122860 |





| Measurements complete suction cups in mm | | | | | | | | |
|--|-----------|---------|-----------|-----------|------------|--------|--|--|
| | OCF20x80P | | OCF3 | 0x90P | OCF40x110P | | | |
| | Α | В | Α | В | Α | В | | |
| 1 | 24x84 | 24x84 | 32.5x92.5 | 32.5x92.5 | 43x113 | 43x113 | | |
| 2 | 15.5 | 15.5 | 16.5 | 16.5 | 22.5 | 22.5 | | |
| 3 | 27.6 | 30.1 | 27.0 | 29.5 | 32.5 | 35.5 | | |
| Max. vertical movement, mm | 3 | 3 | 4 | 4 | 5 | 5 | | |
| Max. expanding lip, mm | 27x86.2 | 27x86.2 | 36x95 | 36x95 | 49x118 | 49x118 | | |