

COVAL

vacuum managers

FPC/FPCX FlowPack Suction Cups



ADVANCED VACUUM SOLUTIONS

General information

Focusing on the needs of its customers in the food industry, COVAL has developed a series of particularly innovative silicone cups, dedicated to the high-speed handling of flexible packaging.

Combining great flexibility and food compatibility, the new FPC and FPCX Series suction cups have been specially designed to optimize the handling of packed bags from 100 g to 5 kg. E.g. - FlowPack, DoyPack, etc.

A Collection of Innovations

The shape of the lip has been designed to match the deformation of flexible packaging and ensure the best possible seal during positioning; which, as an additional advantage, allows for a reduction in power of the vacuum generator. The FPC/FPCX suction cups are also equipped with cleats that stiffen the lip and reinforce the clamping effect.

- Thin and wavy flower-shaped lips that perfectly mold to the packaging, whatever the shape.
- 2 Internal cleats that allow for optimized vacuum while preventing any crushing and also strengthen the hold on the product being handled.
- 3 Fittings featuring a lateral vacuum distributor that prevent any loss in efficiency when the product is held.
- 4 Materials: Food-grade silicone and plastic insert meets FDA and CE standards.

FPCX60SIBL5: A variant of the FPC60SIBL5 suction cup is available with a slightly thicker lip, providing it with greater durability over time



Industry-specific applications







Types of use





Advantages

WITHSTANDS HIGH PRODUCTION RATES:

- Its gripping ability allows for high production rates.
- No interruption in the packaging line due to faulty gripping.

SAFETY:

■ The FPC/FPCX Series suction cup is made of silicone, a material that is recommended for its temperature resistance and food safety. The plastic fittings also conform to food standards.

ENERGY SAVINGS:

■ The airtightness of FPC/FPCX Series suction cups avoids the need for an oversized vacuum generator, allowing for considerable energy savings.

SUITABLE FOR ALL FLOWPACKS:

Different forms and dimensions for a suitable solution.

A Complete Range

AVAILABLE IN FOUR SIZES:

- Round, Ø 35 mm, 1.5 bellows.
- Round, Ø 45 and 60 mm.
- Elliptical, 120 x 100 mm.

(* The Ø60 suction cups are available in 2 versions: FPC and FPCX)

TWO LEVELS OF FLEXIBILITY:

35 and 50 Shore.



FPC VIDEO Discover the FPC suction cups in action!



MATERIALS:

The FPC/FPCX Series suction cups are compatible with FDA food standards (FDA 21 CFR 177.2600.) and meet the European regulation (EC) 1935/2004.

Suction cups: Silicone.

• Fittings: Plastic POM-C and PETP.

■ Flat Seal: Silicone. Screw: Stainless Steel.





Characteristics



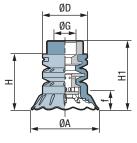
≙	Dim. (mm)	(cm³)	(lbf) ⁽¹⁾	Shore Hardness	(g)	Ø A (mm)	Ø D (mm)	L (mm)	l (mm)	f ⁽²⁾ (mm)	H (mm)	H1 (mm)	Ø G (mm)	E 🔾 (mm)
FPC351.5SIBL3IF14PC	Ø 35	7.2	1.12	35	9.9	35	23	1	1	10	29	36	G1/4"-F	19
FPC351.5SIBL5IF14PC	Ø 35	7.2	1.12	50	9.9	35	23	1	1	10	29	36	G1/4"-F	19
FPC45SIBL3IF38PC	Ø 45	13	2.24	35	20	45	39	1	1	7	23	30	G3/8"-F	26
FPC45SIBL5IF38PC	Ø 45	13	2.24	50	20	45	39	1	1	7	23	30	G3/8"-F	26
FPC60SIBL3IF38PC	Ø 60	24.5	3.37	35	21.5	60	40	1	1	10	26	33	G3/8"-F	26
FPC60SIBL5IF38PC	Ø 60	24.5	3.37	50	21.5	60	40	1	1	10	26	33	G3/8"-F	26
FPCX60SIBL5IF38PC	Ø 60	24.5	3.37	50	21.5	60	40	1	1	10	26	33	G3/8"-F	26
FPC120100SIBL3IF38P1V	120x100	167	11.24	35	92.1	1	1	120	100	15	32.5	42.5	G3/8"-F	1
FPC120100SIBL5IF38P1V	120x100	167	11.24	50	92.1	1	1	120	100	15	32.5	42.5	G3/8"-F	1

(1) Force measured at 65% vacuum, without safety factor. (2) f = deflection of the suction cup.

Dimensions "Suction Cup + Fitting"

FPC351.5...IF14PC

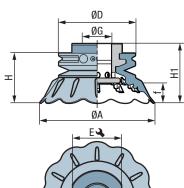
Round, Ø 35 mm, 1.5 bellows





FPC45...IF38PC FPC60/FPCX60...IF38PC

Round, Ø 45 and 60 mm

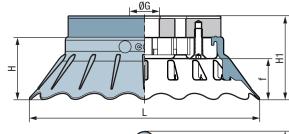


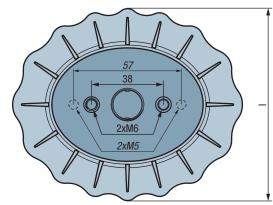


On our site www.coval.com you will find 3D models of all our products, in formats suitable for the principal CAD software.

FPC120100...IF38P1V

Elliptical, 120 x 100 mm



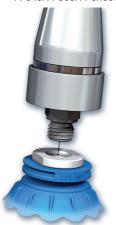


COVAL Data

Mounting Configurations

FPC351.5/FPC45/FPC60/FPCX60 Via connection:

- FPC351.5: G 1/4"-F
- FPC45/FPC60/FPCX60: G 3/8"-F



FPC120100

From below:

■ 2 M5x20 screws (not included).



From above:

2 M6x16 screws (not included).





To Order



FPC351.5

Round, Ø 35 mm, 1.5 bellows COMPLETE PART CONFIGURATION

SUCTION CUP

UPPER G1/4"-F FITTING

LOWER PLATE

■ Hardness 35 Shore

FPC351.5SIBL3IF14PC

■ Hardness 50 Shore FPC351.5SIBL5IF14PC

FPC45/FPC60/FPCX60

Round, Ø 45 and 60 mm **COMPLETE PART CONFIGURATION**

SUCTION CUP

G3/8"-F FITTING:

FPC45

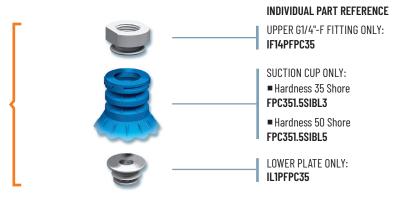
- Hardness 35 Shore FPC45SIBL3IF38PC
- Hardness 50 Shore FPC45SIBL5IF38PC

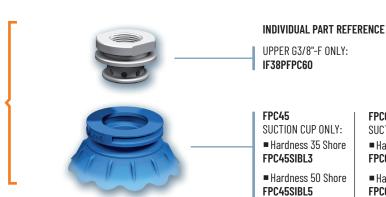
FPC60

- Hardness 35 Shore FPC60SIBL3IF38PC
- Hardness 50 Shore FPC60SIBL5IF38PC

FPCX60

■ Hardness 35 Shore FPCX60SIBL5IF38PC





FPC60

SUCTION CUP ONLY:

■ Hardness 35 Shore FPC60SIBL3

■ Hardness 50 Shore FPC60SIBL5

FPCX60

■ Hardness 50 Shore FPCX60SIBL5

FPC120100

Elliptical, 120 x 100 mm RÉFÉRENCE DES VENTOUSES COMPLÈTES

SUCTION CUP

LOWER PLATE

UPPER PLATE G3/8"-F

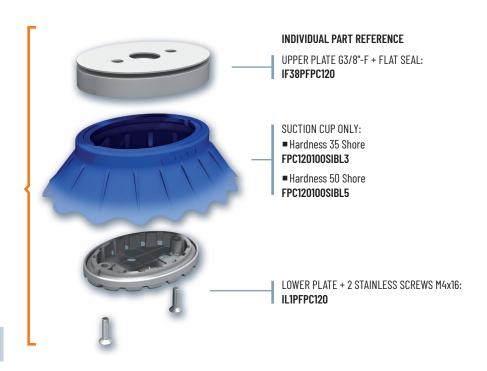
FLAT SEAL:

■ Hardness 35 Shore FPC120100SIBL3IF38P1V

■ Hardness 50 Shore

FPC120100SIBL5IF38P1V

Standard configurations (suction cup + fitting) are delivered unassembled.





Applications

The FPC/FPCX series suction cups are dedicated to the handling of flexible packaging such as FlowPack, Doypack, etc.

- FlowPack < 0.5 kg: suction cup Ø 35 mm, FPC351.5.
- FlowPack < 1 kg: suction cup Ø 45 mm, FPC45.
- FlowPack < 1.5 kg: suction cup Ø 60 mm, FPC60/FPCX60.
- FlowPack ≤ 5 kg: oval suction cup 120x100 mm, FPC120100.



























A TECHNOLOGICAL PARTNER ON A GLOBAL SCALE

Located in the South of France, COVAL SAS designs, produces, and markets high-performance vacuum components and systems for industrial applications in all sectors worldwide.

An ISO 9001: V2015 certified company, COVAL innovates globally in vacuum handling. Our optimized components integrate intelligent and reliable functionalities, adapt to your industrial context, and safely improve your productivity.

With a strong spirit of innovation and technological advancements, the COVAL team is now recognized as an expert in developing reliable, economical, and productive custom solutions.

COVAL's references are found in major industrial sectors such as packaging, food processing, automotive, plastics, aerospace, and robotics, where vacuum handling is crucial for efficiency and productivity.

COVAL markets its products and services worldwide through its subsidiaries and authorized distributor network. Always attentive to its customers, COVAL supports the implementation of its solutions with a continuous and attentive relationship.

Visit the following section on COVAL's website: contacts > commercial network to view the most current list.







COVAL INC.









COVAL CHINA

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