

PFOG Grooved Vacuum Cups



Features

- **Vacuum Grooves On Underside Increases Holding Area**
- **Resists Acceleration and Deceleration Shear**
- **Shear Resistance Is Increased By 25%**
- **20 mm to 40 mm Diameters**

Applications

The anti-slip flat cups are for pick-and- place applications that require an increased holding force without having to increase the diameter of the cup. The grooved foot pattern channels the vacuum flow to the cup's outer diameter which increases resistance to the shear force by 25% over conventional flat pads. These cups are perfect for high speed press transfer of small to medium sized stamped metal products with oily surfaces. This cup also works well with corrugated product.

PFOG Series Vacuum Cups

Special grooved flat cup with single lip provides increases vacuum flow area. Increased holding force resists against slipping of products with oily surfaces. Increased holding force also works well with corrugated product.

PFOTK Series Barbed Bulkhead

Top stem connectors secured with jam nuts and allow tubing connections at the top side. Nickel plated brass materials.



PFOTM Series Male Thread Connector

Simple male connection for low profile positions secured to a plate or bracket.

Fitting Material: Aluminium.



PFOYK Series 90° Barbed Adapter

Side stem connectors allow you to secure the stem with a bolt through a plate or "L" bracket to allow the tube connection from the side port. Nickel plated brass materials.



PFOTF Series Female Thread Connector

Simple female connection for low profile positions secured to a plate or bracket.

Fitting Material: Aluminium.

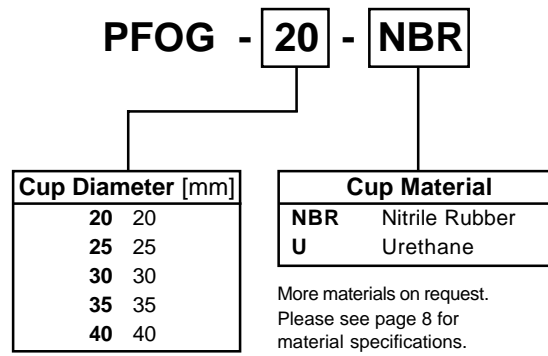


PFOTYS Series Bulkhead Level Compensator

303 stainless steel construction secured with jam nuts. Spring biased compensators can absorb impacts of down-strokes and adjust for different levels of pick up points. 303 stainless corrosion resistant materials with drymet bushings increases the strength and life.

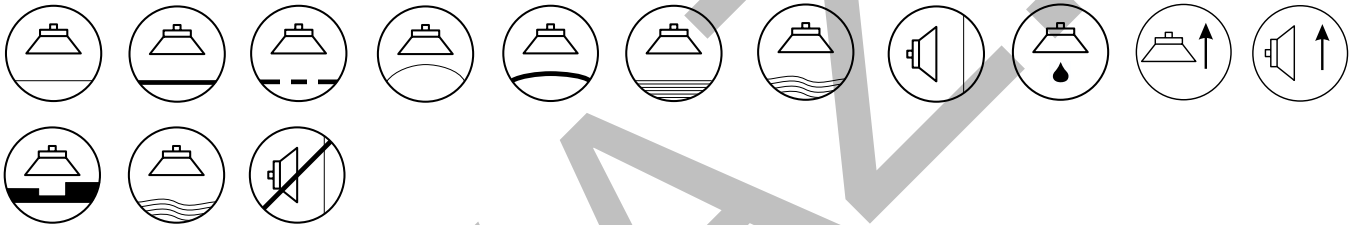


Model Number Index

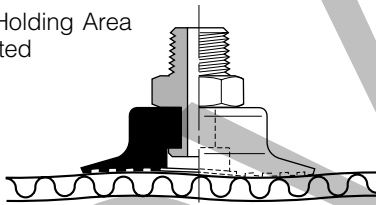


Selection Guide

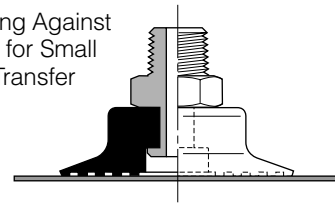
Anti-Slip Flat Cups



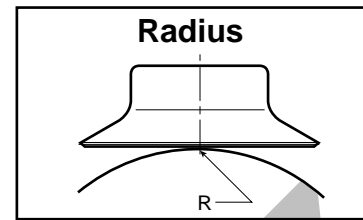
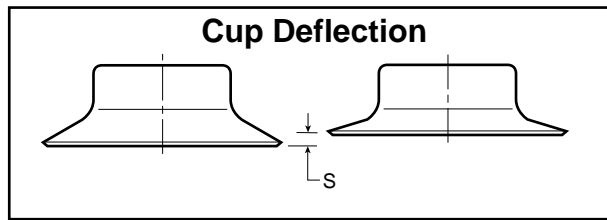
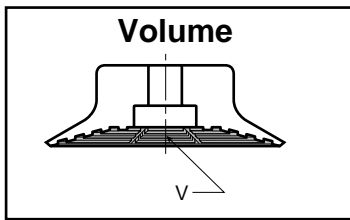
- Increased Holding Area for Corrugated



- Resists Slipping Against Oily Surfaces for Small Sheet Metal Transfer



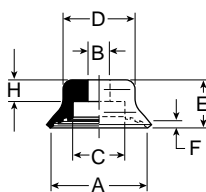
Main Data for Anti-Slip PFOG Suction Cups



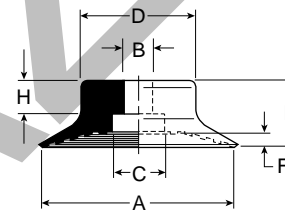
Model Number	Cup Diameter [mm]	Area [cm ²]	Volume [V] liters	Lifting Force @ 60% [N]		Cup Deflection [S] [mm]	Radius R [mm]
PFOG-20	20	3,14	0,0008	18,0	11,25	2,3	4,0
PFOG-25	25	4,91	0,0013	29,0	18,0	3,0	17,5
PFOG-30	30	7,07	0,0018	42,0	26,0	2,0	26,0
PFOG-35	35	9,62	0,0026	57,0	35,0	3,0	37,0
PFOG-40	40	12,60	0,0040	74,0	46,0	3,5	41,0

Dimensions

PFOG-20



PFOG-25 thru PFOG-40



Model Number	ØA	ØB	ØC	ØD	E	F	H
PFOG-20-*	20	4,6	11	15	10	1,5	4,5
PFOG-25-*	25	6	11	16	14	1,1	7
PFOG-30-*	30	6	11	14	12	1,3	7
PFOG-35-*	35	6	11	21	12	1,6	7
PFOG-40-*	40	6	11	24	14	2,8	7

Millimeter
* Cup Material

PFOTM Vacuum Cup Assemblies



Model Number Index

PFOTM - **25** - **NBR** - **G1**

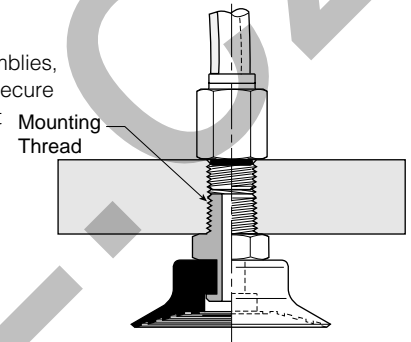
Cup Diameter [mm]	Cup Material	Mounting Thread
25 25	NBR Nitrile Rubber	G1 1/8 BSPP
30 30	U Urethane	G2 1/4 BSPP
35 35		See Chart Below
40 40		

More materials on request. Please see page 8 for material specifications.

Installation

Note:

When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage.



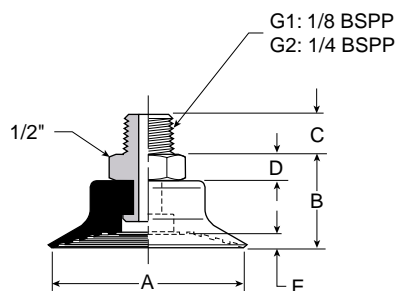
Male Threaded Fitting for PFOG Cups

PFOG Cup Diameter [mm]	FTM Part Number	Mounting Thread
25		
30	FTM-20B-G1	1/8 BSPP
35	FTM-20B-G2	1/4 BSPP
40		

Millimeter

Dimensions

PFOTM-25-1/8 thru
PFOTM-40-1/8



Model Number	ØA	B	C	D	E
PFOTM-25-*-*†	25	19	8	5	1,1
PFOTM-30-*-*†	30	17	8	5	1,3
PFOTM-35-*-*†	35	19	8	5	1,6
PFOTM-40-*-*†	40	19	8	5	2,8

Millimeter

* Cup Material

† Thread Size

PFOTF Vacuum Cup Assemblies



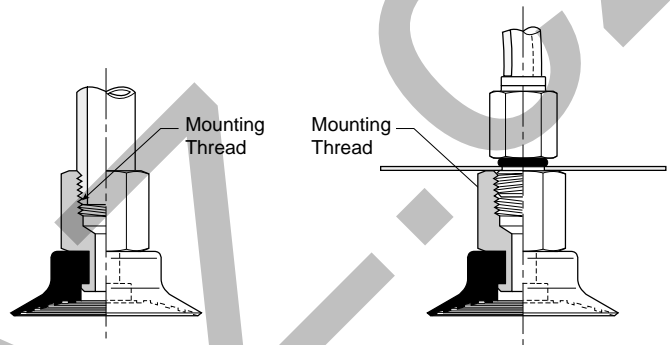
Model Number Index

PFOTF - 25 - NBR - G1

Cup Diameter [mm]	Cup Material	Mounting Thread
25 25	NBR Nitrile Rubber	G1 1/8 BSPP
30 30	U Urethane	G2 1/4 BSPP
35 35		See Chart Below
40 40		

More materials on request. Please see page 8 for material specifications.

Installation



Note:

When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage.

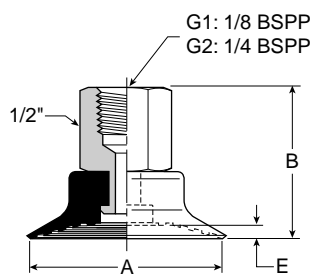
Female Threaded Fitting for PFOG Cups

PFOG Cup Diameter [mm]	FTF Part Number	Mounting Thread
25		
30	FTF-20B-G1	1/8 BSPP
35	FTF-20B-G2	1/4 BSPP
40		

Millimeter

Dimensions

PFOTF-25-1/8F thru
PFOTF-40-1/8F



Model Number	ØA	B	E
PFOTF-25-*†	25	28	1,1
PFOTF-30-*†	30	26	1,3
PFOTF-35-*†	35	28	1,6
PFOTF-40-*†	40	28	2,8

Millimeter

* Cup Material

† Thread Size

PFOTK Vacuum Cup Assemblies



Model Number Index

PFOTK - **25** - **NBR**

Cup Diameter [mm]	
20	20
25	25
30	30
35	35
40	40

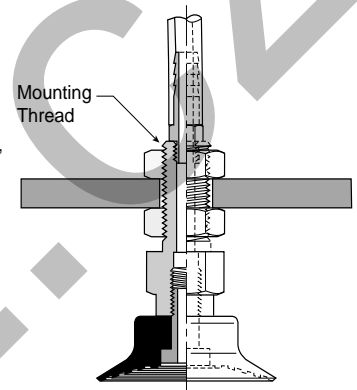
Cup Material	
NBR	Nitrile Rubber
U	Urethane

More materials on request.
Please see page 8 for material specifications.

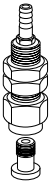
Installation

Note:

When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage.



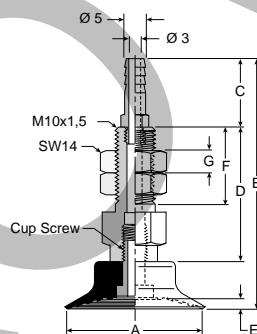
Barbed Bulkhead for PFOG Cups

PFOG Cup Diameter [mm]	FTK Part Number	Mounting Thread
 25 30 35 40	FTK-20B	M10x1,5 Female

Millimeter

Dimensions

PFOTK-25 thru
PFOTK-40



Model Number	ØA	B	C	D	E	F	G
PFOTK-25-*	25	62	16	32	1,1	20	5
PFOTK-30-*	30	60	16	32	1,3	20	5
PFOTK-35-*	35	62	16	32	1,6	20	5
PFOTK-40-*	40	62	16	32	2,8	20	5

Millimeter

* Cup Material

PFOYK Vacuum Cup Assemblies



Model Number Index

PFOYK - **25** - **NBR**

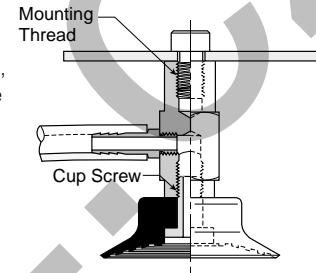
Cup Diameter [mm]		Cup Material	
25	25	NBR	Nitrile Rubber
30	30	U	Urethane
35	35		
40	40		

More materials on request.
Please see page 8 for material specifications.

Installation

Note:

When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage.



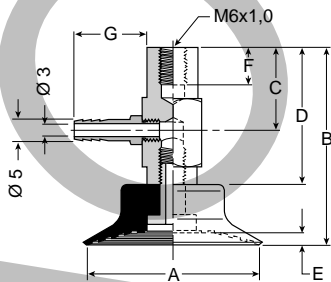
90° Barbed Adapter for PFOG Cups

PFOG Cup Diameter [mm]	FYK Part Number	Min. Tube ID	Mounting Thread
25	FYK-20B	4	M6x1,0 Female
30			
35			
40			

Millimeter

Dimensions

PFOYK-25 thru PFOYK-40



Model Number	ØA	B	C	D	E	F	G
PFOYK-25-*	25	46	20	32	1,1	10	16
PFOYK-30-*	30	44	20	32	1,3	10	16
PFOYK-35-*	35	44	20	32	1,6	10	16
PFOYK-40-*	40	46	20	32	2,8	10	16

Millimeter

* Cup Material

PFOTYS Vacuum Cup Assemblies

Model Number Index

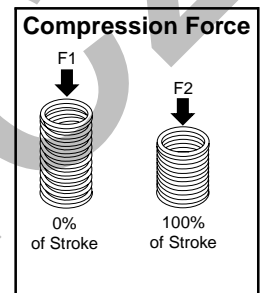
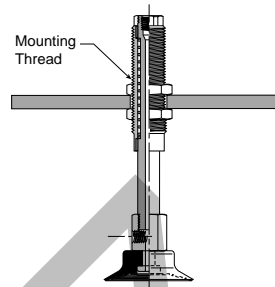


PFOTYS **25 6** **NBR**

Cup Diameter [mm]	Stroke
25 25	6, 15, 30
30 30	
35 35	
40 40	

Cup Material	
NBR	Nitrile Rubber
U	Urethane

More materials on request.
Please see page 8 for material specifications.



Installation

Note:

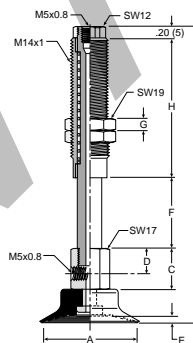
When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage.

Bulkhead Level Compensator Fitting for PFOG Cups

PFOG Cup Diameter [mm]	TYS Part Number	Mounting Thread	Port Thread	F1 N	F2 N
	25	M14x1,0	M5x0,8	2,5	3,4
	30				
	35				
	40				

Dimensions

PFOTYS25 thru
PFOTYS40



Model Number	ØA	B	C	D	E	F	G	H	Wt [g]
PFOTYS256*	25	78	17	10	1,1	6	5	36	66
PFOTYS2515*	25	87	17	10	1,1	15	5	36	71
PFOTYS2530*	25	124	17	10	1,1	30	5	58	96
PFOTYS306*	30	76	17	10	1,3	6	5	36	67
PFOTYS3015*	30	85	17	10	1,3	15	5	36	72
PFOTYS3030*	30	122	17	10	1,3	30	5	58	97
PFOTYS356*	35	76	17	10	1,6	6	5	36	71
PFOTYS3515*	35	85	17	10	1,6	15	5	36	74
PFOTYS3530*	35	122	17	10	1,6	30	5	58	99
PFOTYS406*	40	78	17	10	2,8	6	5	36	71
PFOTYS4015*	40	87	17	10	2,8	15	5	36	76
PFOTYS4030*	40	124	17	10	2,8	30	5	58	101

Millimeter

* Cup Material