

A

These cups are for curved, corrugated, lightly textured surfaces and flexible product. Under vacuum, the bellow cup will collapse on contact and lift the product for a short distance. This inherent performance facilitates lifting and destack operations by breaking the vacuum between stacked product. The bellow style adds level compensation for applications that have inconsistent stack heights or uneven surfaces. The inclusive 30-degree rotation of the bellow helps maintain the vacuum seal when lifting sheet products that flex. Because of it's shape however the bellows suction cup is not very well suitable for applications involving lifting vertical surfaces.



Features

- Bellows design for level compensation within restricted clearances
- Sheet separation for flexible and stacked products
- Soft seal lip for flexible products
- 10mm to 150mm diameters

Styles

- PBTM series male thread connector
- PBTF series female thread connector
- PBTK series barbed bulkhead
- PBYK series 90° barbed adapter
- PBTYS series bulkhead level compensator

Specifications

Cup material	Nitrile	Silicon	Urethane
Material code	NBR	SI	U
Operating temperature (°C)	-20° to +120°	-60° to +250°	-30° to +120°
Color	Black	White	Blue
Hardness, shore A (°Sh)	55 ±5	55 ±5	55 ±5

How to order

Cups assemblies and replacement cups are specified by cup diameter and material. Standard nitrile and silicon are listed on the following pages. To specify an alternative material, replace the cup material with alternative cup material code.

Example: To specify a cup assembly with urethane (U), replace (NBR) with (U) in the part number. PBTM-20B-NBR-G1 becomes PBTM-20B-U-G1. Inquire with factory for availability.

Application guide

Bellows

Flat surface, thin section	Flat surface, any section	Slightly bowed surface, thin section	Slightly bowed surface, any section	Bowed surface, thin section	Bowed surface, any section	Soft porous material, any section	Differences in heights and levels	Corrugated sheet handling	Not for vertical lift	Metal sheet handling

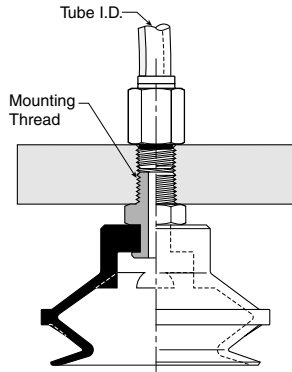
PBTM Series Male Thread Connector

Simple male connection for low profile positions secured to a plate or bracket. BSPP, NPT metric threads.
 Fitting material: aluminum.

Installation

Note:

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



Cup diameter (mm)	Vacuum port	Complete assembly Nitrile (NBR)	Replacement cup Nitrile (NBR)	Complete assembly Silicon (SI)	Replacement cup Silicon (SI)	Replacement cup fitting
10	M5	PBTM-10A-NBR-M5	PBG-10A-NBR	PBTM-10A-SI-M5	PBG-10A-SI	FTM-5A-M5
10	1/8 BSPP	PBTM-10A-NBR-G1	PBG-10A-NBR	PBTM-10A-SI-G1	PBG-10A-SI	FTM-5A-G1
15	M5	PBTM-15A-NBR-M5	PBG-15A-NBR	PBTM-15A-SI-M5	PBG-15A-SI	FTM-5A-M5
15	1/8 BSPP	PBTM-15A-NBR-G1	PBG-15A-NBR	PBTM-15A-SI-G1	PBG-15A-SI	FTM-5A-G1
20	1/8 BSPP	PBTM-20B-NBR-G1	PBG-20B-NBR	PBTM-20B-SI-G1	PBG-20B-SI	FTM-20B-G1
20	1/4 BSPP	PBTM-20B-NBR-G2	PBG-20B-NBR	PBTM-20B-SI-G2	PBG-20B-SI	FTM-20B-G2
20	M10	PBTM-20B-NBR-M10	PBG-20B-NBR	PBTM-20B-SI-M10	PBG-20B-SI	FTM-20B-M10
20	1/8 NPT	PBTM-20B-NBR-N1	PBG-20B-NBR	PBTM-20B-SI-N1	PBG-20B-SI	FTM-20B-N1
30	1/8 BSPP	PBTM-30-NBR-G1	PBG-30-NBR	PBTM-30-SI-G1	PBG-30-SI	FTM-20B-G1
30	1/4 BSPP	PBTM-30-NBR-G2	PBG-30-NBR	PBTM-30-SI-G2	PBG-30-SI	FTM-20B-G2
30	M10	PBTM-30-NBR-M10	PBG-30-NBR	PBTM-30-SI-M10	PBG-30-SI	FTM-20B-M10
30	1/8 NPT	PBTM-30-NBR-N1	PBG-30-NBR	PBTM-30-SI-N1	PBG-30-SI	FTM-20B-N1
40	1/8 BSPP	PBTM-40-NBR-G1	PBG-40-NBR	PBTM-40-SI-G1	PBG-40-SI	FTM-20B-G1
40	1/4 BSPP	PBTM-40-NBR-G2	PBG-40-NBR	PBTM-40-SI-G2	PBG-40-SI	FTM-20B-G2
40	M10	PBTM-40-NBR-M10	PBG-40-NBR	PBTM-40-SI-M10	PBG-40-SI	FTM-20B-M10
40	1/8 NPT	PBTM-40-NBR-N1	PBG-40-NBR	PBTM-40-SI-N1	PBG-40-SI	FTM-20B-N1
50	1/8 BSPP	PBTM-50-NBR-G1	PBG-50-NBR	PBTM-50-SI-G1	PBG-50-SI	FTM-50-G1
50	1/4 BSPP	PBTM-50-NBR-G2	PBG-50-NBR	PBTM-50-SI-G2	PBG-50-SI	FTM-50-G2
50	1/8 NPT	PBTM-50-NBR-N1	PBG-50-NBR	PBTM-50-SI-N1	PBG-50-SI	FTM-50-N1
75	1/4 BSPP	PBTM-75-NBR-G2	PBG-75-NBR	PBTM-75-SI-G2	PBG-75-SI	FTM-60-G2
75	M10	PBTM-75-NBR-M10	PBG-75-NBR	PBTM-75-SI-M10	PBG-75-SI	FTM-60-M10
75	1/4 NPT	PBTM-75-NBR-N2	PBG-75-NBR	PBTM-75-SI-N2	PBG-75-SI	FTM-60-N2

PBTF Series Female Thread Connector

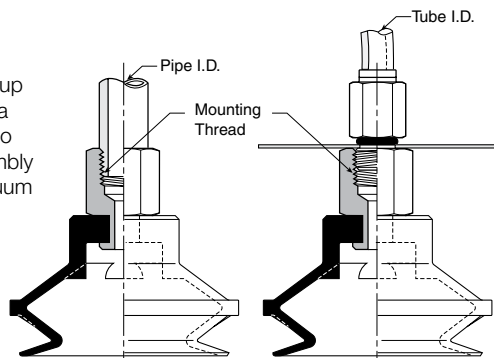
Simple female connection for low profile positions secured to a plate or bracket. BSPP, NPT metric threads.

Fitting material: aluminum.

Installation

Note:

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



Cup diameter (mm)	Vacuum port	Complete assembly Nitrile (NBR)	Replacement cup Nitrile (NBR)	Complete assembly Silicon (SI)	Replacement cup Silicon (SI)	Replacement cup fitting
10	1/8 BSPP	PBTF-10A-NBR-G1	PBG-10A-NBR	PBTF-10A-SI-G1	PBG-10A-SI	FTF-5A-G1
10	M5	PBTF-10A-NBR-M5	PBG-10A-NBR	PBTF-10A-SI-M5	PBG-10A-SI	FTF-5A-M5
15	1/8 BSPP	PBTF-15A-NBR-G1	PBG-15A-NBR	PBTF-15A-SI-G1	PBG-15A-SI	FTF-5A-G1
15	M5	PBTF-15A-NBR-M5	PBG-15A-NBR	PBTF-15A-SI-M5	PBG-15A-SI	FTF-5A-M5
20	1/8 BSPP	PBTF-20B-NBR-G1	PBG-20B-NBR	PBTF-20B-SI-G1	PBG-20B-SI	FTF-20B-G1
20	1/8 NPT	PBTF-20B-NBR-N1	PBG-20B-NBR	PBTF-20B-SI-N1	PBG-20B-SI	FTF-20B-N1
30	1/8 BSPP	PBTF-30-NBR-G1	PBG-30-NBR	PBTF-30-SI-G1	PBG-30-SI	FTF-20B-G1
30	1/8 NPT	PBTF-30-NBR-N1	PBG-30-NBR	PBTF-30-SI-N1	PBG-30-SI	FTF-20B-N1
30	1/4 BSPP	PBTF-30-NBR-G2	PBG-30-NBR	PBTF-30-SI-G2	PBG-30-SI	FTF-20B-G2
40	1/8 BSPP	PBTF-40-NBR-G1	PBG-40-NBR	PBTF-40-SI-G1	PBG-40-SI	FTF-20B-G1
40	1/8 NPT	PBTF-40-NBR-N1	PBG-40-NBR	PBTF-40-SI-N1	PBG-40-SI	FTF-20B-N1
40	1/4 BSPP	PBTF-40-NBR-G2	PBG-40-NBR	PBTF-40-SI-G2	PBG-40-SI	FTF-20B-G2
50	1/8 BSPP	PBTF-50-NBR-G1	PBG-50-NBR	PBTF-50-SI-G1	PBG-50-SI	FTF-50-G1
50	1/4 BSPP	PBTF-50-NBR-G2	PBG-50-NBR	PBTF-50-SI-G2	PBG-50-SI	FTF-50-G2
50	1/8 NPT	PBTF-50-NBR-N1	PBG-50-NBR	PBTF-50-SI-N1	PBG-50-SI	FTF-50-N1
75	1/4 BSPP	PBTF-75-NBR-G2	PBG-75-NBR	PBTF-75-SI-G2	PBG-75-SI	FTF-60-G2
75	1/4 NPT	PBTF-75-NBR-N2	PBG-75-NBR	PBTF-75-SI-N2	PBG-75-SI	FTF-60-N2
110	1/2 BSPP	PBTF-110-NBR-G4	PBG-110-NBR	PBTF-110-SI-G4	PBG-110-SI	FTF-120-G4
110	1/2 NPT	PBTF-110-NBR-N4	PBG-110-NBR	PBTF-110-SI-N4	PBG-110-SI	FTF-120-N4
150	1/2 BSPP	PBTF-150-NBR-G4	PBG-150-NBR	PBTF-150-SI-G4	PBG-150-SI	FTF-120-G4
150	1/2 NPT	PBTF-150-NBR-N4	PBG-150-NBR	PBTF-150-SI-N4	PBG-150-SI	FTF-120-N4

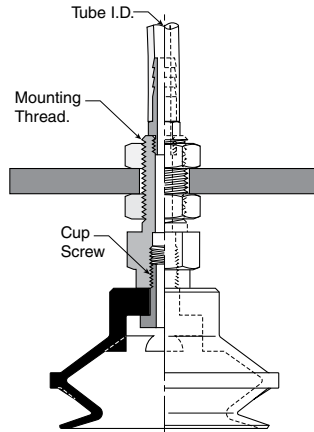
PBTK Series Barbed Bulkhead

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

Installation

Note:

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



Cup diameter (mm)	Vacuum port	Complete assembly Nitrile (NBR)	Replacement cup Nitrile (NBR)	Complete assembly Silicon (SI)	Replacement cup Silicon (SI)	Replacement cup fitting
10	Barb	PBTK-10A-NBR	PBG-10A-NBR	PBTK-10A-SI	PBG-10A-SI	FTK-5A
15	Barb	PBTK-15A-NBR	PBG-15A-NBR	PBTK-15A-SI	PBG-15-SI	FTK-5A
20	Barb	PBTK-20-NBR	PBG-20-NBR	PBTK-20-SI	PBG-20-SI	FTK-20
30	Barb	PBTK-30-NBR	PBG-30-NBR	PBTK-30-SI	PBG-30-SI	FTK-25
40	Barb	PBTK-40-NBR	PBG-40-NBR	PBTK-40-SI	PBG-40-SI	FTK-25
50	Barb	PBTK-50-NBR	PBG-50-NBR	PBTK-50-SI	PBG-50-SI	FTK-50
75	1/8 BSPP	PBTK-75-NBR-G1	PBG-75-NBR	PBTK-75-SI-G1	PBG-75-SI	FTK-60-G1
75	1/8 NPT	PBTK-75-NBR-N1	PBG-75-NBR	PBTK-75-SI-N1	PBG-75-SI	FTK-60-N1

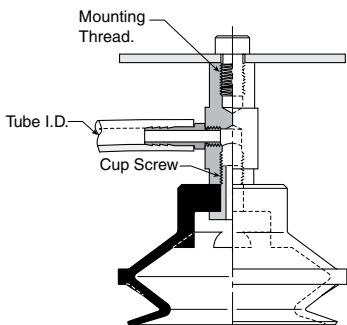
PBYK Series 90° Barbed Adapter

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. Fitting material: nickel plated brass.

Installation

Note:

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



Cup diameter (mm)	Vacuum port	Complete assembly Nitrile (NBR)	Replacement cup Nitrile (NBR)	Complete assembly Silicon (SI)	Replacement cup Silicon (SI)	Replacement cup fitting
10	Barb	PBYK-10A-NBR	PBG-10A-NBR	PBYK-10A-SI	PBG-10A-SI	FYK-5A
15	Barb	PBYK-15A-NBR	PBG-15A-NBR	PBYK-15A-SI	PBG-15A-SI	FYK-15
20	Barb	PBYK-20-NBR	PBG-20-NBR	PBYK-20-SI	PBG-20-SI	FYK-20
30	Barb	PBYK-30-NBR	PBG-30-NBR	PBYK-30-SI	PBG-30-SI	FYK-25
40	Barb	PBYK-40-NBR	PBG-40-NBR	PBYK-40-SI	PBG-40-SI	FYK-25
50	Barb	PBYK-50-NBR	PBG-50-NBR	PBYK-50-SI	PBG-50-SI	FYK-50
75	1/8 BSPP	PBYK-75-NBR-G1	PBG-75-NBR	PBYK-75-SI-G1	PBG-75-SI	FYK-60-G1
75	1/8 NPT	PBYK-75-NBR-N1	PBG-75-NBR	PBYK-75-SI-N1	PBG-75-SI	FYK-60-N1
110	1/8 BSPP	PBYK-110-NBR-G1	PBG-110-NBR	PBYK-110-SI-G1	PBG-110-SI	FYK-120-G1
110	1/8 NPT	PBYK-110-NBR-N1	PBG-110-NBR	PBYK-110-SI-N1	PBG-110-SI	FYK-120-N1
150	1/8 BSPP	PBYK-150-NBR-G1	PBG-150-NBR	PBYK-150-SI-G1	PBG-150-SI	FYK-120-G1
150	1/8 NPT	PBYK-150-NBR-N1	PBG-150-NBR	PBYK-150-SI-N1	PBG-150-SI	FYK-120-N1

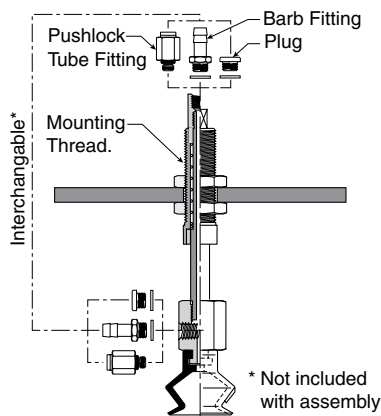
PBTYS Series Bulkhead Level Compensator

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.

Installation

Note:

When installing cup assemblies, use a sealant material to secure the assembly and prevent vacuum leakage. Shown are interchangeable connectors & plugs for port connections.



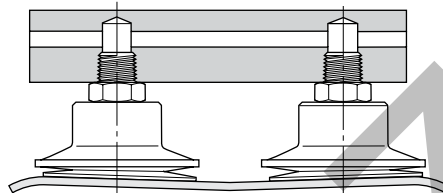
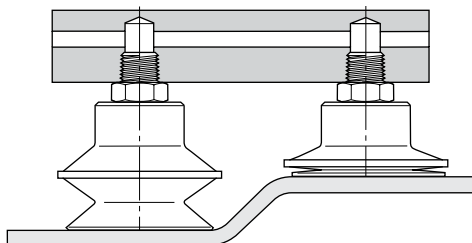
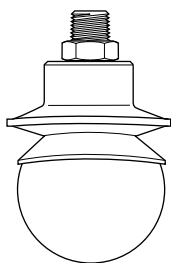
Cup dia. (mm)	Vacuum port	Stroke (mm)	Spring compression Force lbf (N)		Cup material Nitrile assembly (NBR)	Replacement cup Nitrile (NBR)	Cup material Silicon assembly (SI)	Replacement cup Silicon (SI)	Level Compensator P/N
			0%	100%					
10	M5	10	.11 (.49)	.13 (.59)	PBTYS10A10NBRM5	PBG-10A-NBR	PBTYS10A10SIM5	PBG-10A-SI	FTYS-5A-10-M5
10	M5	15	.11 (.49)	.13 (.59)	PBTYS10A15NBRM5	PBG-10A-NBR	PBTYS10A15SIM5	PBG-10A-SI	FTYS-5A-15-M5
15	M5	10	.11 (.49)	.13 (.59)	PBTYS15A10NBRM5	PBG-15A-NBR	PBTYS15A10SIM5	PBG-15A-SI	FTYS-5A-10-M5
15	M5	15	.11 (.49)	.13 (.59)	PBTYS15A15NBRM5	PBG-15A-NBR	PBTYS15A15SIM5	PBG-15A-SI	FTYS-5A-15-M5
20	M5	15	.56 (2.5)	.79 (3.4)	PBTYS20B15NBRM5	PBG-20B-NBR	PBTYS20B15SIM5	PBG-20B-SI	FTYS-20B-15-M5
20	M5	30	.56 (2.5)	1.2 (4.9)	PBTYS20B30NBRM5	PBG-20B-NBR	PBTYS20B30SIM5	PBG-20B-SI	FTYS-20B-30-M5
30	M5	15	.56 (2.5)	.79 (3.4)	PBTYS3015NBRM5	PBG-30-NBR	PBTYS3015SIM5	PBG-30-SI	FTYS-20B-15-M5
30	M5	30	.56 (2.5)	1.2 (4.9)	PBTYS3030NBRM5	PBG-30-NBR	PBTYS3030SIM5	PBG-30-SI	FTYS-20B-30-M5
40	M5	15	.56 (2.5)	.79 (3.4)	PBTYS4015NBRM5	PBG-40-NBR	PBTYS4015SIM5	PBG-40-SI	FTYS-20B-15-M5
40	M5	30	.56 (2.5)	1.2 (4.9)	PBTYS4030NBRM5	PBG-40-NBR	PBTYS4030SIM5	PBG-40-SI	FTYS-20B-30-M5
50	M5	15	.56 (2.5)	1.2 (4.9)	PBTYS5015NBRM5	PBG-50-NBR	PBTYS5015SIM5	PBG-50-SI	FTYS-50-15-M5
50	M5	30	.67 (2.9)	1.4 (5.9)	PBTYS5030NBRM5	PBG-50-NBR	PBTYS5030SIM5	PBG-50-SI	FTYS-50-30-M5
75	1/8 BSPP	30	1.6 (6.8)	3.6 (15.6)	PBTYS7530NBRG1	PBG-75-NBR	PBTYS7530SIG1	PBG-75-SI	FTYS-60-30-G1
75	1/8 BSPP	50	1.9 (8.3)	4.5 (19.6)	PBTYS7550NBRG1	PBG-75-NBR	PBTYS7550SIG1	PBG-75-SI	FTYS-60-50-G1
110	1/4 BSPP	20	3.6 (15.6)	6.8 (29)	PBTYS12020NBRG2	PBG-110-NBR	PBTYS11020SIG2	PBG-110-SI	FTYS-120-20-G2
110	1/4 BSPP	50	3.4 (14.7)	6.8 (29)	PBTYS12050NBRG2	PBG-110-NBR	PBTYS11050SIG2	PBG-110-SI	FTYS-120-50-G2
150	1/4 BSPP	20	3.6 (15.6)	6.8 (29)	PBTYS15020NBRG2	PBG-150-NBR	PBTYS15020SIG2	PBG-150-SI	FTYS-120-20-G2
150	1/4 BSPP	50	3.4 (14.7)	6.8 (29)	PBTYS15050NBRG2	PBG-150-NBR	PBTYS15050SIG2	PBG-150-SI	FTYS-120-50-G2

Applications

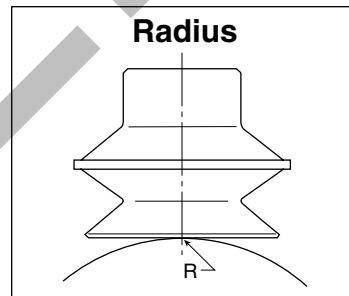
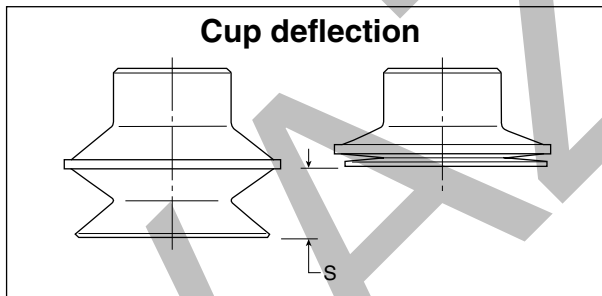
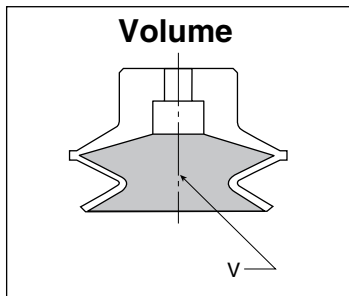
- Round objects

- Uneven surfaces
- Curved product
- Level compensation

- Flexible product
- Soft seal lip



Main data for bellows PBG cups

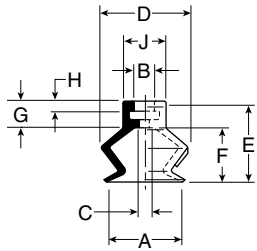


Model number	Cup diameter mm	Area cm ²	Volume (V) liters	Lifting force @60% (N)		Cup deflection (S) mm	Radius (R) mm
PBG-10A-*	10	0.79	.0002	4.80	—	4	4
PBG-15A-*	15	1.77	.0007	10.80	—	6	6
PBG-20-*	20	3.14	.001	19.20	—	9	8
PBG-20B-*	20	3.14	.001	19.20	—	9	8
PBG-30-*	30	7.07	.004	43.2	—	13	15
PBG-40-*	40	12.60	.009	76.9	—	13	30
PBG-50-*	50	19.60	.026	120	—	20	40
PBG-75-*	75	44.02	.076	270	—	22	70
PBG-110-*	110	95.00	.111	434	—	29	100
PBG-150-*	150	176.70	.260	1081	—	38	130

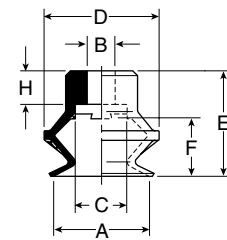
* Cup material

PBG Series Replacement Cup Dimensions

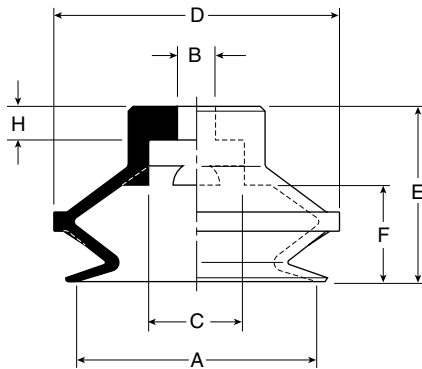
**PBG-10A and
 PBG-20B**



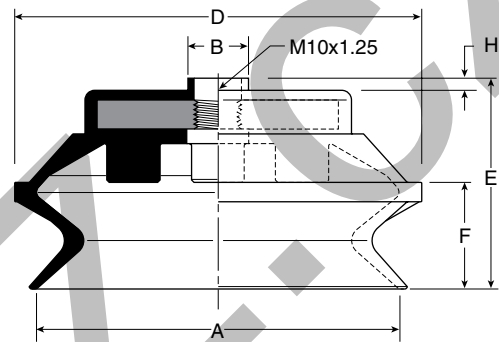
**PBG-20 thru
 PBG-40**



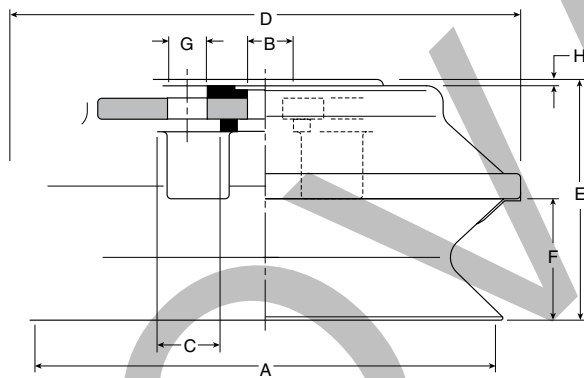
PBG-50



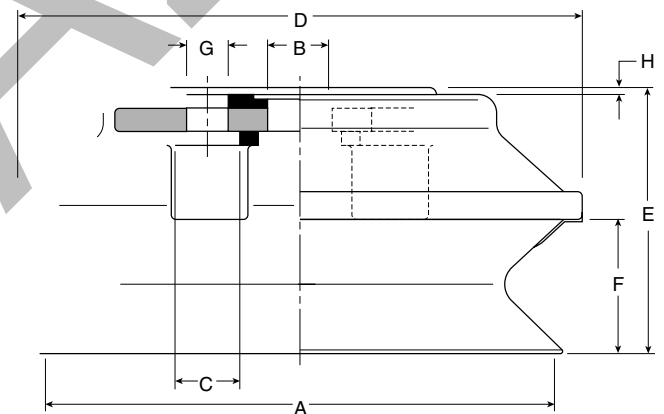
PBG-75



PBG-110



PBG-150



Dimensions (mm)

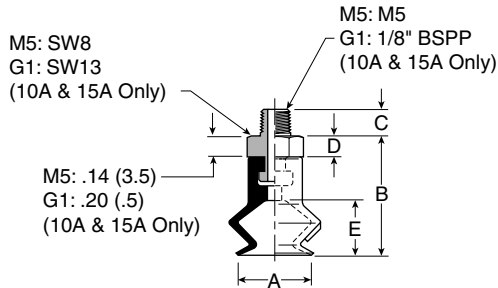
Model number	ØA	ØB	ØC	ØD	E	F	G	H	ØJ
PBG-10A-*	10.6	4	2	12.4	13.5	7.5	6	2	6
PBG-15A-*	15	4	4	17	16	10	6	2	6
PBG-20B-*	20	6	10.8	24	22	12	—	7	—
PBG-20-*	20	4.6	10.8	24	19.5	12	—	4.5	—
PBG-30-*	30	5.8	10.8	36	30.5	17	—	7	—
PBG-40-*	40	5.8	10.8	46	30.5	15.5	—	7	—
PBG-50-*	50	7.8	19.8	59.5	36.5	20	—	7	—
PBG-75-*	75	12.5	—	84	43.5	22	—	2.5	—
PBG-110-*	110	14	14	122	57.5	29	—	1.5	—
PBG-150-*	150	20	14	167	76.5	38	4xØ9xØ40	1.5	—

* Cup material

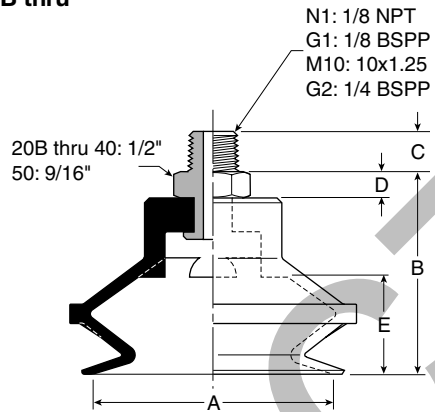


Dimensions

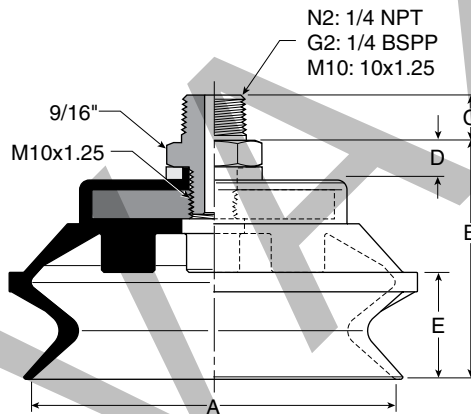
**PBTM-10A thru
PBTM-15**



**PBTM-20B thru
PBTM-50**



PBTM-75



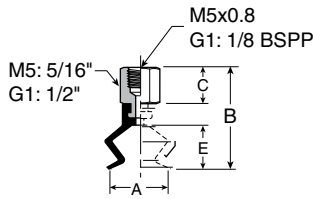
Dimensions (mm)

Model number	ØA	B	C (M5)	C (N1 / G1)	C (M10 / G2)	C (N2)	D	E
PBTM-10A- [*] - [†]	10	17	4.5	8	—	—	See Dwg.	7.5
PBTM-15A- [*] - [†]	15	19.5	4.5	8	—	—	See Dwg.	10
PBTM-20B- [*] - [†]	20	27	—	8	10	—	5	12
PBTM-30- [*] - [†]	30	35.5	—	8	10	—	5	17
PBTM-40- [*] - [†]	40	35.5	—	8	10	—	5	15.5
PBTM-50- [*] - [†]	50	41.5	—	8	10	—	5	20
PBTM-75- [*] - [†]	95	50.5	—	—	10	15	7	22

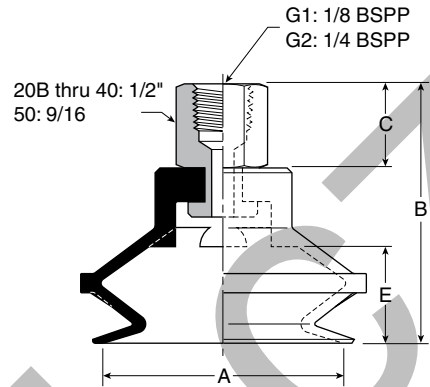
^{*} Cup material
[†] Thread size

Dimensions

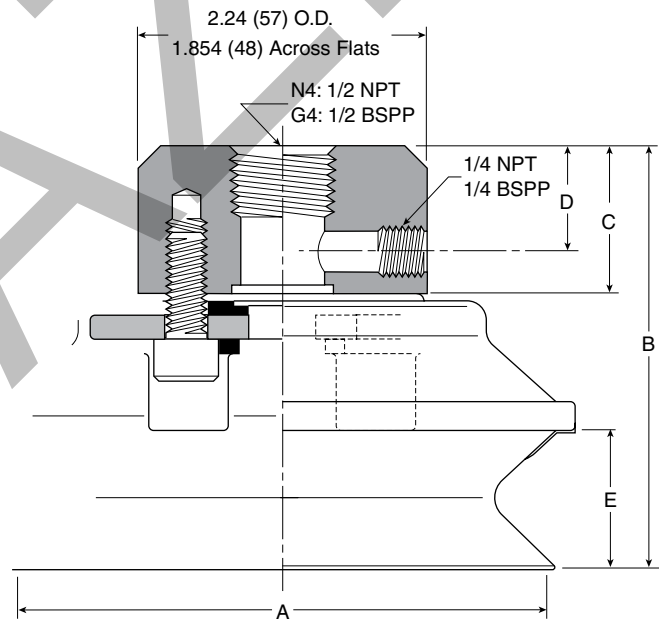
PBTF-10A thru
PBTF-15A



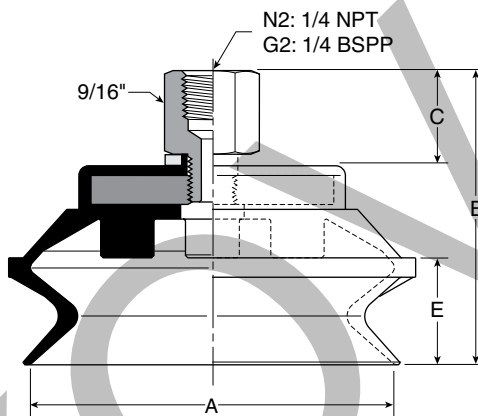
PBTF-20B thru
PBTF 50



PBTF-110 thru
PBTF-150



PBTF-75



Dimensions (mm)

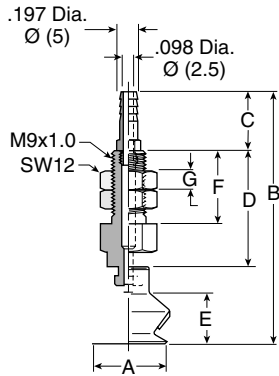
Model number	ØA	B	B (M5)	C	C (M5)	D	E
PBTF-10A-*†	10	21.5	27.5	8	14	—	7.5
PBTF-15A-*†	15	24	30	8	14	—	10
PBTF-20B-*†	20	36	—	14	—	—	12
PBTF-30-*†	30	44.5	—	14	—	—	17
PBTF-40-*†	40	44.5	—	14	—	—	15.5
PBTF-50-*†	50	50.5	—	14	—	—	20
PBTF-75-*†	95	60.5	—	19.5	—	—	22
PBTF-110-*†	120	78	—	24	—	13	29
PBTF-150-*†	150	97	—	24	—	13	38

* Cup material
† Thread size

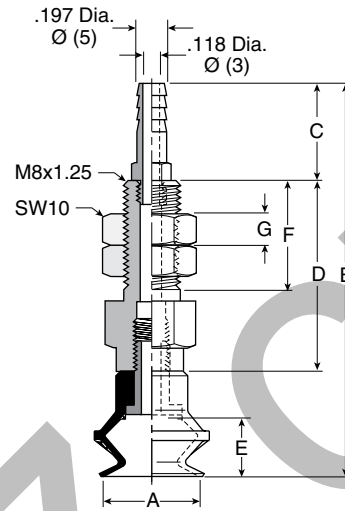


Dimensions

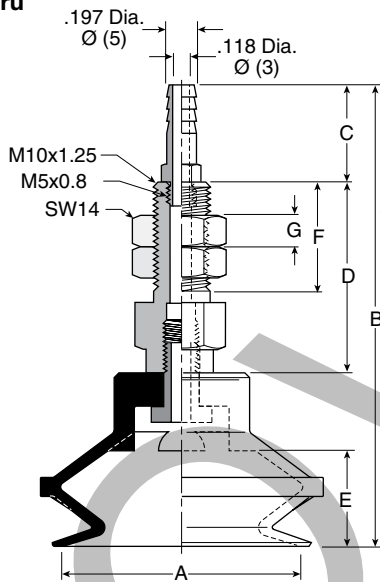
**PBTK-10A thru
 PBTK-15A**



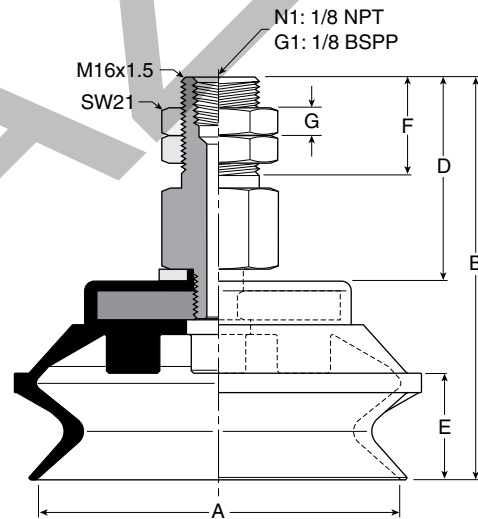
PBTK-20



**PBTK-30 thru
 PBTK-50**



PBTK-75



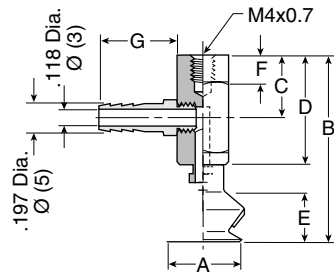
Dimensions (mm)

Model number	ØA	B	C	D	E	F	G	Wt g
PBTK-10A-*	10	52	10	22.5	7.5	6	15.5	15
PBTK-15A-*	15	54.5	10	22.5	10	6	15.5	15
PBTK-20-*	20	57.5	16	22	12	6	15	21
PBTK-30-*	30	78.5	16	32	17	6	20	45
PBTK-40-*	40	78.5	16	32	15.5	6	20	48
PBTK-50-*	50	84.5	16	32	20	6	20	62
PBTK-75-*,†	95	83.5	—	42.5	22	11	—	186

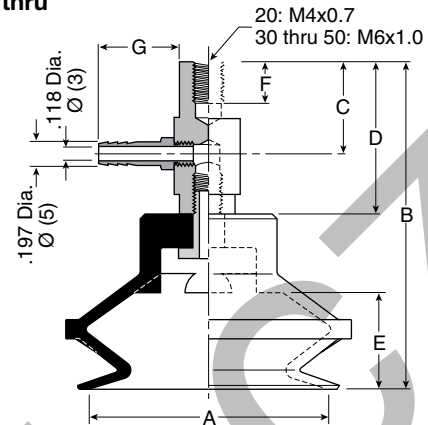
* Cup material
 † Vacuum port

Dimensions

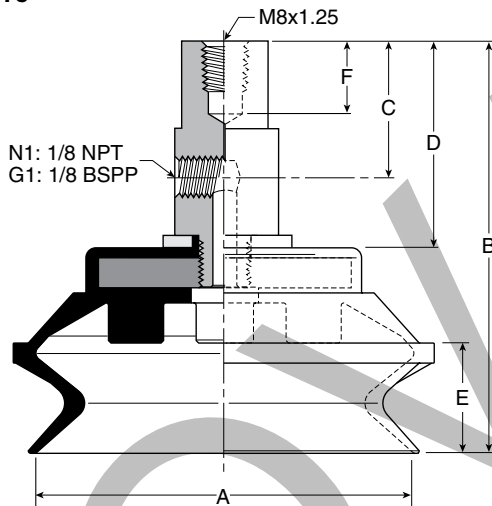
PBYK-10A thru
PBYK-15A



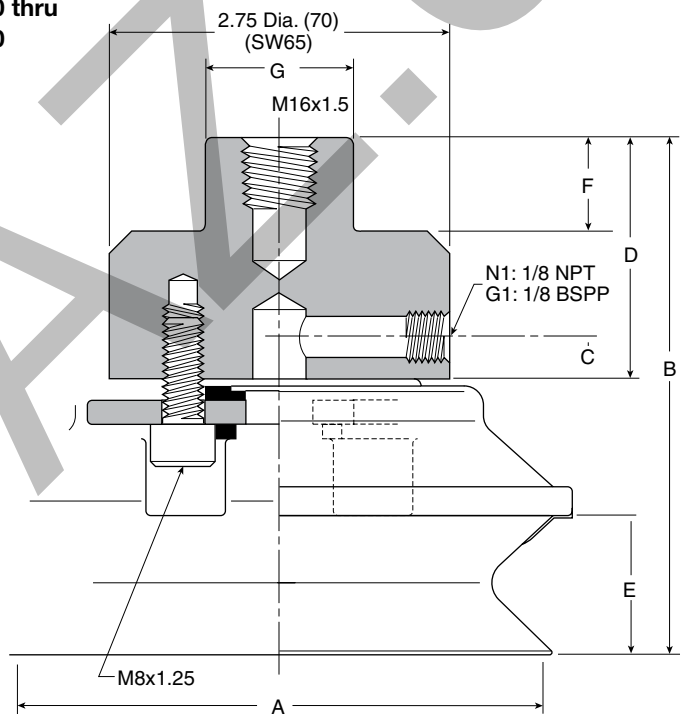
PBYK-20 thru
PBYK-50



PBYK-75



PBYK-110 thru
PBYK-150



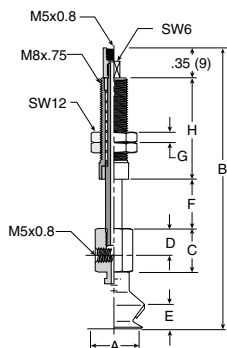
Dimensions (mm)

Model number	ØA	B	C	D	E	F	G	Wt g
PBYK-10A-*	10	36	13	22.5	7.5	6	16	16
PBYK-15A-*	15	38.5	13	22.5	10	6	16	16
PBYK-20-*	20	41.5	14	22	12	6	16	21
PBYK-30-*	30	62.5	20	32	17	6	16	45
PBYK-40-*	40	62.5	20	32	15.5	6	16	58
PBYK-50-*	50	68.5	20	32	20	6	16	67
PBYK-75-*.†	95	83.5	28	42.5	22	11	—	176
PBYK-110-*.†	120	106	12	50	29	20	Dia. 30	670
PBYK-150-*.†	150	125	12	50	38	20	Dia. 30	1180

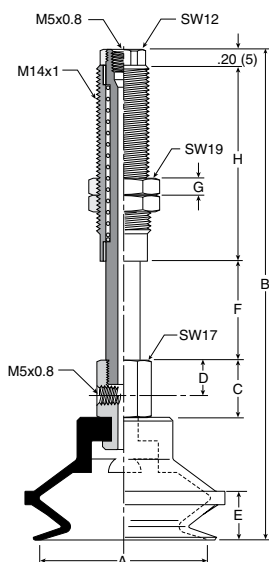
* Cup material
† Vacuum port

Dimensions

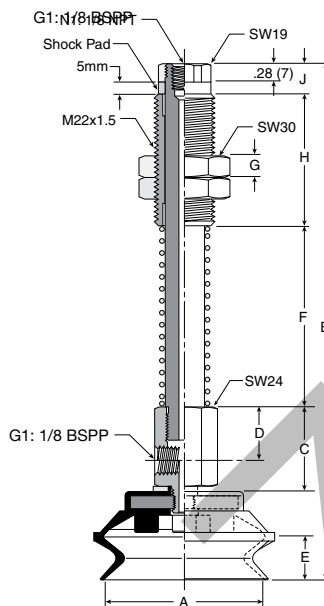
**PBTYS10A thru
PBTYS15A1**



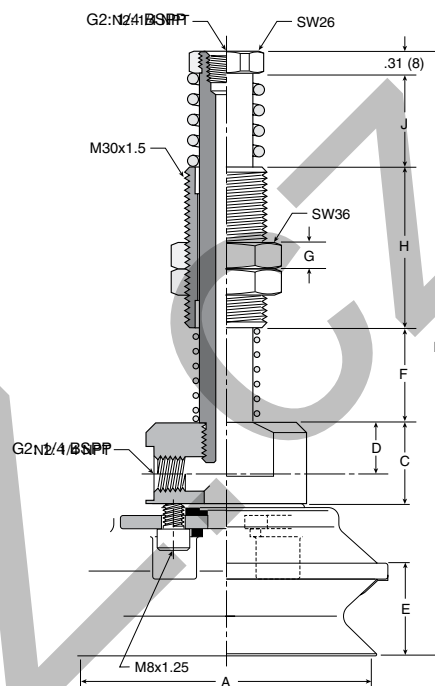
**PBTYS20B thru
PBTYS50**



PBTYS75



**PBTYS110 thru
PBTYS150**



Dimensions (mm)

Model number	ØA	B	C	D	E	F	G	H	J	Wt g
PBTYS10A10*	10	68.5	13	8	7.5	10	3	23	—	18.5
PBTYS10A15*	10	81	13	8	7.5	15	3	30.5	—	21
PBTYS15A10*	15	71	13	8	10	10	3	23	—	18.5
PBTYS15A15*	15	83.5	13	8	10	15	3	30.5	—	21
PBTYS20B15*	20	99	17	10	12	15	5	36	—	72
PBTYS20B30*	20	136	17	10	12	30	5	58	—	97
PBTYS3015*†	30	103.5	17	10	17	15	5	36	—	97
PBTYS3030*†	30	140.5	17	10	17	30	5	58	—	102
PBTYS4015*†	40	103.5	17	10	15.5	15	5	36	—	83
PBTYS4030*†	40	140.5	17	10	15.5	30	5	58	—	108
PBTYS5015*†	50	109.5	17	10	20	15	5	36	—	97
PBTYS5030*†	50	146.5	17	10	20	30	5	58	—	122
PBTYS7530*†	75	178	32.5	20	22	45	10	50	12	339
PBTYS7550*†	75	203	32.5	20	22	70	10	50	12	373
PBTYS11020*†	110	224	30	18	29	35	10	60	35	1194
PBTYS11070*†	110	289	30	18	29	100	10	60	35	1276
PBTYS15020*†	150	243	30	18	38	35	10	60	35	1704
PBTYS15070*†	150	308	30	18	38	100	10	60	35	1786

* Cup material
† Vacuum port