NITRILE VACUUM CUPS

Vacuum Products | Families and Features

Round Destacker Vacuum Cup

- Designed specifically for pogo-style destacking applications.
- High compressive-strength and shock-resistance extends cup life.
- High vertical lifting capacity prior to part release.
- Provides low-impact part release during pull-off by utilizing the patented stress relief port.



US Patents #7,309,089 7.712.807





Round Traction Vacuum Cups

- For applications with slick/oily surfaces or for destackers.
- Internal cleats holds part more securely in high speed applications.
- Bellows add flexibility for minor misalignments.



Round Flatfoot Vacuum Cups

- For applications with flat to medium curvature and dry to medium slick/oily surfaces.
- Cleats provide full support to prevent damage to thin outer panels.
- Maximizes lifting capacity and minimizes slip.



Round Belcup Vacuum Cups

- For applications with flat to mild contoured surfaces.
- Bellows add flexibility for minor misalignments.
- Ideal for general purpose.



Round Deepdish Vacuum Cups

- For applications with contoured surfaces.
- Thin lip wraps and seals curved surfaces tightly.
- Bell structure and internal design works best on materials with convex surfaces.



Oval Flatfoot Vacuum Cups

- For applications with medium slick/oily to dry surfaces.
- Oval shape maximizes contact on narrow panels and maximizes vertical lifting capacity.
- Cleats provide full support to prevent damage to thin outer panels.



Oval Deepdish Vacuum Cups

- · For applications with contoured surfaces as well as wet or oily surfaces.
- Oval shape maximizes contact on narrow panels and bell structure works well on materials with convex surfaces.



POLYURETHANE VACUUM CUPS

Vacuum Products | Families and Features



Round Bellows Vacuum Cups

- For applications with slick/oily surfaces or for destackers
- Bellows add flexibility for minor misalignments
- Dual Durometer Polyurethane Outside 55 durometer (red), internal treads 60 durometer (dark green)
- Optional TCT (Triple durometer) style cup offers extra soft internal cleat to eliminate possible dimples on thin sheet metal



Round Flat Foot Vacuum Cups

- · Works well on flat to slightly contoured parts
- Maximizes lifting capacity and minimizes slip
- Excellent for transverse loads with high acceleration and deceleration applications
- Dual Durometer Polyurethane Outside 55 durometer (red), internal treads 60 durometer (dark green)



Round Deepdish Vacuum Cups

- Interchangeable with existing/competitor vacuum cups
- New bell shape design is excellent for highly contoured surfaces
- · Optional lightweight plastic mount available
- Designed to handle higher acceleration/deceleration speeds
- Shape and design offers better transverse loading



Oval Bellows Vacuum Cups

- Works well on flat and contoured parts
- Maximum lifting capacity where limited space is available
- Bellows add flexibilty for minor misalignments
- Dual Durometer Polyurethane Outside 55 durometer (red), internal treads 60 durometer (dark green)



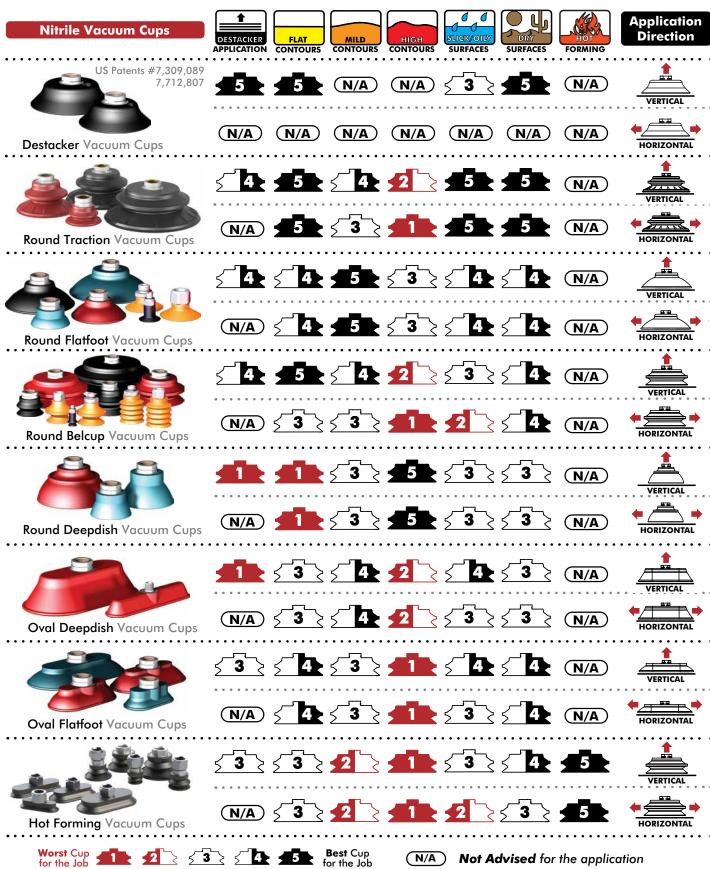
Oval Flat Foot Vacuum Cups

- · Works well on flat to slightly contoured parts.
- Long oval shape maximizes contact on narrow surfaces
- Cleats provide full support to prevent damage to thin outer panal
- Dual Durometer Polyurethane Outside 55 durometer (red), internal treads 60 durometer (dark green)



CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

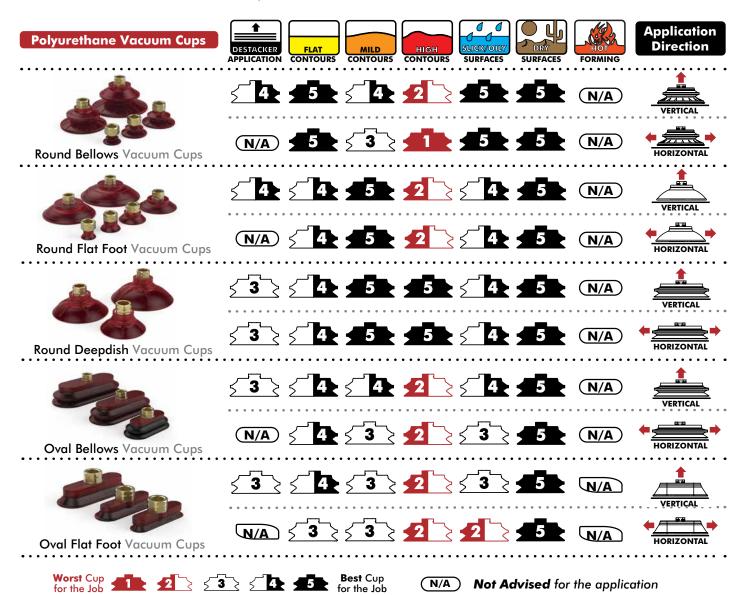
Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups



This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.

CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

Vacuum Products | Application, Characteristics and Usage Chart for Vacuum Cups



This chart is a guide to aid in selecting the right family of cup for general surfaces, contours, and applications.



CHOOSE THE RIGHT VACUUM CUP FOR YOUR APPLICATION

Vacuum Products | ACU Index, How Vacuum Cups Work, Cup Usage, and Safety Factor

Application, Characteristics, and Usage (ACU) Index

Determining the type and durometer of vacuum cup appropriate for a particular application is typically based on three criteria.

- How oily or slick the part surface is.
- How much contour or curvature the part has.
- How long you can expect the cup to last (Longevity)?

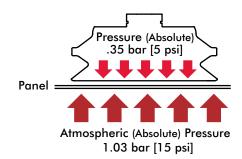


A set of vacuum cups of the same size and type, each having different durometers may handle oily/slick contoured parts differently. However, cup longevity of each may be affected as a result of durometer, application and usage. The ACU Index is a reference shown with each type of vacuum cup and is used to illustrate the differences between vacuum cup types and durometers, when considering the above criteria.

How Vacuum Cups work

A panel adheres to a vacuum cup because the surrounding pressure (atmospheric pressure) is greater than the pressure inside the vacuum cup. The greater pressure pushes the panel onto the cup.

To create the low pressure in the vacuum cup, it is connected to a vacuum generator. The lower the pressure (higher vacuum) inside the cup; the greater the lifting force of the suction cup.



Vacuum Cup Usage

It is important to use the proper size and quantity of vacuum cups needed for your application. There are five steps which will help you make sure your application has the appropriate vacuum cup usage.

- **Step 1:** Determine application and find appropriate cup family type.
- Step 2: Determine panel weight.
- **Step 3:** Find maximum cup size based on panel contour and shape.
- **Step 4:** Find the appropriate cup size lifting capacity in the chart, found on the catalog page featuring the cup family type chosen.
- **Step 5:** Determine safety factor determined on application (See Below).

Use the formula on the right to determine the proper amount of cups needed to move your panel.

Formula

$$n = \frac{w \times s}{f}$$

- Weight of Panel
- Lifting force of cup
- s = Safety factor
- n = Number of cups

Weight and lifting force must be in the same units, either English or Metric.

Safety Factor

Ideal plant conditions*: (2)

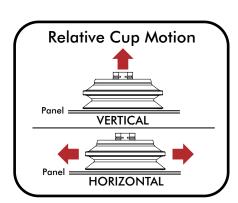
Fast moving robot: (+1) Slick or Oily Panel: (+1) Flexing Panel: (+2) Small cups: (+1)

High Horizontal Loads: (+1)

Starting with Ideal conditions (2), add each additional conditions to determine total safety factor.

For example: Ideal conditions: 2 Fast moving robots: +1 Flexing Panel: +2 Total Safety Factor

(*)Ideal conditions are defined as having no surface, operational, or environmental conditions which could adversely effect the performance to the vacuum cup.



VACUUM CUP OPTIONS

Vacuum Products | Durometer and Mounting Options

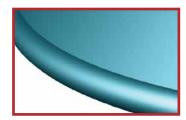
DESTACO Vacuum Cups are offered in different families, and may be offered in different durometers. Vacuum cups are also offered in Imperial and Metric mounting options which may vary according to the size and type of the vacuum cup.

Vacuum cups can be ordered as follows:

CPI-"MODEL"-"Mounting"-"DuRometer"



Vacuum Cup Durometers ("DR") (Color equals Durometer (Shore A Scale))





This soft durometer is useful for dryer, contoured panels. However, this durometer has less life.



45

This medium hard durometer will seal and adapt to contours well and is good for all around usage. This durometer has a longer life than the 30 durometer.



60

This hard durometer is helpful for extremely oily panels and flat surfaces such as a destacker operation. This durometer has a longer life than the 45 durometer.



PU55/PU60

This durable long-lasting polyurethane material is resistant to oils, UV light and oxygen. No dry rotting or cracking with better elastic memory.



= Durometer not available in cup style.

Imperial Vacuum Cup Mounting Options ("M")



1/4" NPT



3/8" NPT



1.25" **SQUARE**



1/2" NPT



1/8" NPT MALE



QUICK DISCONNECT

Metric Vacuum Cup Mounting Options ("M")





M—CUP = Mount only available in this cup size.



1.25" SQUARE



M10 MALE



M8 FEMALE



SMOOTH BORE

\mathbf{M} - \mathbf{W} = Mount not available in this cup size.

Micro Industrial Mounting Options ("M")



10-32 MALE



1/8" G FEMALE



1/8" G MALE

Polyurethane Mounting Options ("M")



3/8 NPT



Nylon G3/8



G3/8

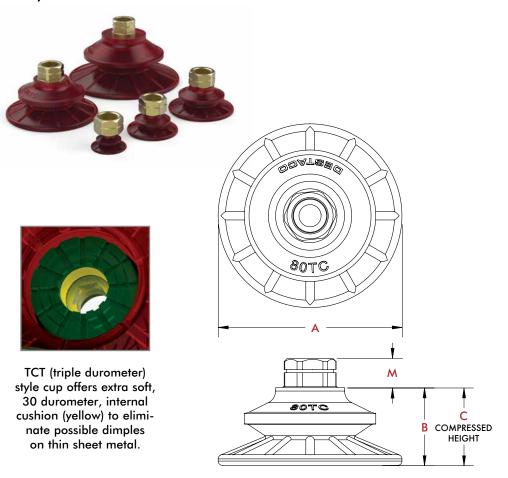


1.25 in. Square



Vacuum Products | Dimensions | Ordering Information

TC Polyurethane Round Bellows



Specifications:

Temperature:

10°-49° C [50°-120° F]

Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).



Mount	М
U38/G38	[0.57] 14.5
P38	[0.85] 21.5
С	[0.73] 18.5

Dimensions shown "[inch] mm"

TC Dimensions

Model	Α	В	С	Weight
30 TC	[1.18]	[0.57]	[0.37]	[1.00 oz]
	30	14.5	9.5	28 g
40 TC	[1.77]	[0.69]	[0.41]	[1.20 oz]
	45	17.5	10.5	34 g
60 TC	[2.40]	[0.85]	[0.45]	[2.15 oz]
	61	21.5	11.5	61 g
80 TC/	[3.35]	[1.40]	[0.85]	[4.97 oz]
80 TCT	85	35.5	21.5	141 g
110TC/	[4.53]	[2.03]	[1.20]	[9.70 oz]
110TCT	115	51.5	30.5	275 g

Dimensions shown "[inch] mm"

TC Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
30 TC	[6]	[3]	[1.75]
	2.72	1.36	0.79
40 TC	[18]	[13]	[10]
	8.16	5.90	4.54
60 TC	[25]	[27]	[20]
	11.34	12.25	9.07
80 TC/	[53]	[54]	[36]
80 TCT	24.04	24.49	16.33
110TC/	[85]	[78]	[57]
110TCT	38.56	35.38	25.86

Holding capacities shown "[lbs] kg"

TC Round Bellows Ordering Information

 Metric
 Ø30mm
 VC-30TC-(M)-PU55

 Ø45mm
 VC-40TC-(M)-PU55

 Ø61mm
 VC-60TC-(M)-PU55

 Ø85mm
 VC-80TC-(M)-PU55

 Ø115mm
 VC-110TC-(M)-PU55

 Ø115mm
 VC-110TCT-(M)-PU55

Mounting Options ("M")





Vacuum Products | Dimensions | Ordering Information

Specifications:

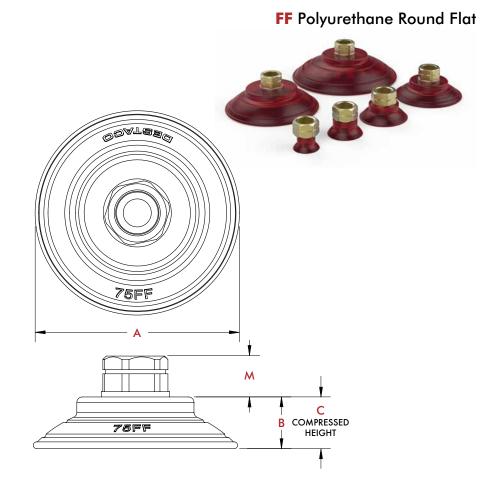
Temperature:

10°-49° C [50°-120° F] Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green).



Mount	М
U38/G38	[0.57] 14.5
P38	[0.85] 21.5
c	[0.73] 18.5

Dimensions shown "[inch] mm"



FF Dimensions

	Model	Α	В	С	Weight
Ī	25FF	[0.98] 25	[0.57] 14.5	[0.49] 12.5	[0.36 oz] 10 g
	35FF	[1.38] 35	[0.61] 15.5	[0.51] 13	[1.48 oz] 42 g
	50FF	[1.97] 50	[0.26] 6.5	[0.51] 13	[2.36 oz] 67 g
	75 FF	[2.95] 75	[0.77] 19.5	[0.59] 15	[3.21 oz] 91 g
	100FF	[3.94] 100	[0.96] 24.5	[0.73] 18.5	[6.06 oz] 172 g
	125FF	[4.92] 125	[1.20] 30.5	[0.89] 22.5	[9.88 oz] 280 g

Dimensions shown "[inch] mm"

FF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
25 FF	[6]	[2]	[1.5]
	2.72	0.91	0.68
35FF	[13]	[9]	[7]
	5.90	4.08	3.18
50FF	[24]	[23]	[16]
	10.89	10.43	7.26
75 FF	[53]	[47]	[31]
	24.04	21.32	14.06
100FF	[110]	[109]	[46]
	49.90	49.44	20.87
125FF	[146]	[135]	[53]
	66.23	61.24	24.04

Holding capacities shown "[lbs] kg"

Mounting Options ("M")

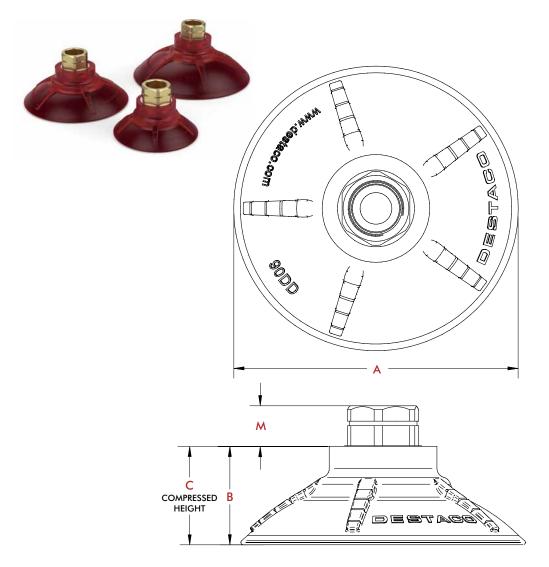


FF Round Flat Ordering Information

Metric	
Ø 25 mm	VC- 25FF -(M)-PU55
Ø35mm	VC- 35FF -(M)-PU55
Ø50mm	VC- 50FF -(M)-PU55
	VC- 75FF -(M)-PU55
	VC- 100FF -(M)-PU55
	VC- 125FF -(M)-PU55

Vacuum Products | Dimensions | Technical Specifications

DD Polyurethane Round Deepdish



Specifications:

Temperature:

10°-49° C [50°-120° F]

Materials:

60 durometer (red)



Mount	М
U38	[0.51] 13
G38	[0.77] 19.5
P38	[0.68] 17.3
C	[0.37] 9.5

Dimensions shown "[inch] mm"

DD Dimensions

Model	Α	В	С	Weight with U38/G38/C	Weight with P38
65 DD	[2.66]	[1.11]	[0.67]	[2.08 oz]	[0.9 oz]
	67.5	28.2	17.0	59 g	25 g
90 DD	[3.64]	[1.27]	[0.75]	[2.72 oz]	[1.5 oz]
	92.5	32.2	19.0	77 g	43 g
110 DD	[4.43]	[1.60]	[0.83]	[3.60 oz]	[2.4 oz]
	112.5	40.6	21.0	102 g	68 g

Dimensions shown "[inch] mm"

DD Holding Capacity

@ -0.9 bar [25.6 inhg] vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
65 DD	[42.8]	[44.1]	[30.2]
	19.4	20.0	13.7
90 DD	[69.7]	[80.5]	[55.8]
	31.6	36.5	25.3
110 DD	[97.4]	[129.0]	[80.5]
	44.2	58.5	36.5

Holding capacities shown "[lbs] kg"

DD Round Deepdish Ordering Information

Metric

 Ø67.5mm
 VC-65DD-(M)-PU60

 Ø92.5mm
 VC-90DD-(M)-PU60

 Ø112.5mm
 VC-110DD-(M)-PU60

Mounting Options ("M")





Vacuum Products | Dimensions | Ordering Information



Positioning Kit (for G38 and P38 thread mounts only).
Sold separately.
Order No.
CPI-LNB-VSA-19
Includes (1) O-ring and (1) locknut.

Specifications:

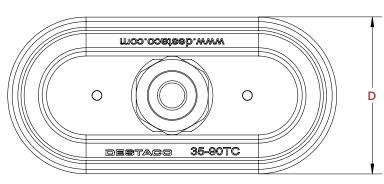
Temperature:

10°-49° C [50°-120° F]

Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green). **TC** Polyurethane Oval Bellows







Mount	M
U38/G38	[0.57] 14.5
P38	[0.85] 21.5
С	[0.73] 18.5

Dimensions shown "[inch] mm"

		M +	_
	DESTAGO 35-90TC		C B COMPRESSED HEIGHT
600		0 0	<u> </u>

TC Dimensions

Model	Α	В	С	D	Weight	
35-90 TC	[4.13]	[1.08]	[0.65]	[1.97]	[3.42 oz]	
	105	27.5	16.5	50	97 g	
50-140 TC	[6.18]	[1.40]	[0.85]	[2.64]	[6.70 oz]	
	157	35.5	21.5	67	190 g	
65-170 TC	[7.36]	[1.63]	[1.04]	[3.23]	[10.93 oz]	
	187	41.5	26.5	82	310 g	

Dimensions shown "[inch] mm"

TC Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
35-90 TC	[45]	[40]	[34]
05-7010	20.41	18.14	15.42
50-140 TC	[99]	[93]	[78]
30-1401C	44.91	42.18	35.38
4E 170TC	[128]	[139]	[149]
65-170 TC	58.06	63.05	67.59

Holding capacities shown "[lbs] kg"

Mounting Options ("M")



TC Oval Bellows Ordering Information

Ø50x105mm	VC-35-90TC-(M)-PU55
Ø67x157mm		
Ø82x187mm		

Vacuum Products | Dimensions | Ordering Information

FF Polyurethane Oval Flat



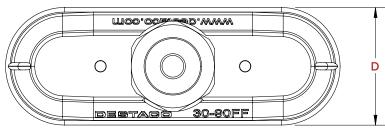
Specifications:

Temperature:

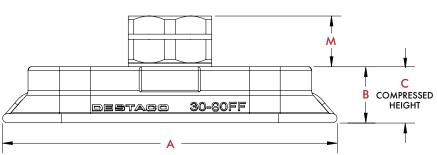
10°-49° C [50°-120° F]

Materials: Dual Durometer Polyurethane - Outside 55 durometer (red), internal treads 60 durometer (dark green). Positioning Kit (for G38 and P38 thread mounts only).
Sold separately.
Order No.
CPI-LNB-VSA-19
Includes (1) O-ring and (1) locknut.









Mount	М	
U38/G38	[0.57] 14.5	
P38	[0.85] 21.5	
С	[0.73] 18.5	

Dimensions shown "[inch] mm"

1.25 in. Square

FF Dimensions

Model	Α	В	С	D	Weight
20-80 FF	[3.31]	[0.61]	[0.49]	[0.94]	[0.85 oz]
	84	15.5	12.5	24	24 g
30-90 FF	[3.66]	[0.61]	[0.45]	[1.30]	[1.05 oz]
	93	15.5	11.5	33	30 g
40-110 FF	[4.45]	[0.85]	[0.65]	[1.69]	[1.94 oz]
	113	21.5	16.5	43	55 g

Dimensions shown "[inch] mm"

FF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
20-80 FF	[25]	[25]	[11]
	11.34	11.34	4.99
30-90 FF	[35]	[36]	[17]
	15.88	16.33	7.71
40-110 FF	[55]	[52]	[18]
	24.95	23.59	8.16

Holding capacities shown "[lbs] kg"

FF Oval Flat Ordering Information

Metric

Ø24x84mm	VC- 20-80FF -(M)-PU55
	VC- 30-90FF -(M)-PU55
	/C- 40-110FF -(M)-PU55

Mounting Options ("M")





DC Destacker Stress Relieving

Vacuum Products | Dimensions | Ordering Information

Specifications:

Temperature:

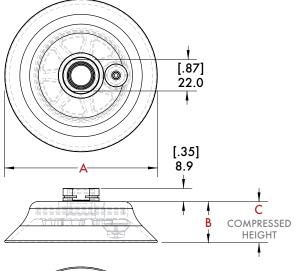
15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

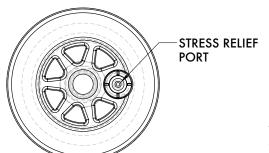
Material: Nitrile **Chemical Resistance:**

Oil, water, grease, hydraulic fluid, alcohol

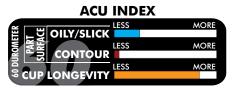












US Patents #7.309.089 7,712,807

DC Dimensions

Model	Α	В	С	Weight
75DC	84.8	25.4	16.7	84 g
[30DC]	[3.34]	[1.00]	[.68]	[3.0 oz]
100DC	105.9	28.6	16.7	120 g
[40DC]	[4.16]	[1.11]	[.68]	[4.2 oz]

Dimensions shown "mm [inch]"

DC Capacity

Appl.	Ver. Lift
75DC	15.9 kg
[30DC]	[35 lb]
100DC	63.1 kg
[40DC]	[139 lb]

Holding capacities shown "N [lbf]"

Ø75 mm..... CPI-75DC-(M)-60

Ø100 mm...... CPI-100DC-(M)-60

DC Destacker Stress Relieving Ordering Information

Imperial Ø3.00"..... CPI-30DC-(M)-60 Ø4.00"..... CPI-40DC-(M)-60

(DR) = Durometer \times 60 (M) = Mounts Available





















Vacuum Products | Dimensions | Ordering Information

TC/HT Round Traction



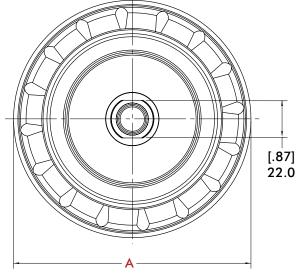
Specifications:

Temperature:

15-59 Sec: -29° to 121° C [-20° to 250° F] 1-5 min: -9° to 82° C [15° to 180° F]

Material: Nitrile Chemical Resistance:

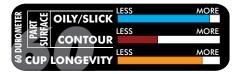
Oil, water, grease, hydraulic fluid, alcohol



[.35]8.9

ACU INDEX

~ [LESS	MORE
ETER	ᇣᇕ	OILY/SLICK	
ROME	気管	LESS	MORE
š	73	CONTOUR	
<u>S</u>		LESS	MORE
₹ (JUP.	LONGEVITY	



TC/HT Dimensions

Model	Α	В	С	D	Е	Weight
[20 TC]	[2.06]	[1.02]	[.68]	[1.64]	[1.25]	[1.3 oz]
50 HT	52.3	25.7	17.3	41.7	31.8	37 g
[35 TC]	[3.50]	[1.71]	[.82]	[2.50]	[1.65]	[2.6 oz]
90 HT	88.9	43.44	20.8	63.5	41.9	73 g
[45 TC]	[4.50]	[1.81]	[.87]	[3.25]	[2.25]	[4.4 oz]
115HT	114.3	46.1	22.1	82.4	57.2	125 g
[55 TC]	[5.50]	[1.81]	[.87]	[4.00]	[3.04]	[7.2 oz]
140HT	139.7	46.1	22.1	101.4	77.1	204 g

Dimensions shown "mm [inch]"

TC/HT Holding Capacity

-,	3 - 1 -	- /	
Appl.	Hor. Dry	Hor. Wet	Ver. Lift
[20TC]	[8.5 lb]	[7 lb]	[22.7 lb]
50HT	3.9 kg	3.2 kg	10.3 kg
[35TC]	[30 lb]	[20 lb]	[66 lb]
90HT	13.6 kg	9.1 kg	29.9 kg
[45TC]	[45 lb]	[30 lb]	[103 lb]
115HT	20.4 kg	13.6 kg	46.7 kg
[55TC]	[100 lb]	[45 lb]	[164 lb]
140HT	45.5 kg	20.4 kg	74.4 kg

COMPRESSED HEIGHT

Holding capacities shown "N [lbf]"

Ø50mm CPI-50HT-(M)-(DR) **Ø90mm** CPI-90HT-(M)-(DR) Ø115mm CPI-115HT-(M)-(DR) Ø140mm CPI-140HT-(M)-(DR)

TC/HT Round Traction Ordering Information

Imperial

Ø2.00"	CPI-20TC-(M)-(DR
Ø 3.50 "	CPI-35TC-(M)-(DR
Ø4.50"	CPI-45TC-(M)-(DR
Ø5 50"	CPL-55TC-(M)-(DR

(M) = Mounts Available











A B C

(M) = Mounts Available

FF/PF Round Flatfoot

Vacuum Products | Dimensions | Technical Specifications

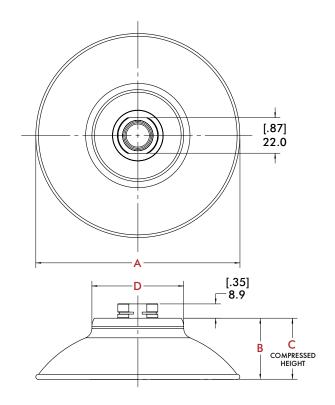
Specifications:

Temperature:

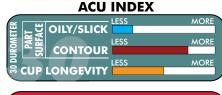
15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

Material: Nitrile Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol











FF/PF Round Flatfoot

Model	Α	В	С	D	Weight
50PF	50.8	22.5	13.0	19.1	40 g
[20FF]	[2.00]	[.89]	[.51]	[.75]	[1.4 oz]
75PF	76.2	25.4	18.2	39.6	57 g
[30FF]	[3.00]	[1.00]	[.72]	[1.56]	[2.0 oz]
100PF	101.6	33.3	22.2	39.6	96 g
[40FF]	[4.00]	[1.31]	[.88]	[1.56]	[3.4 oz]
125PF	127.0	38.2	25.4	57.2	159 g
[50FF]	[5.00]	[1.50]	[1.00]	[2.25]	[5.6 oz]

Dimensions shown "mm [inch]"

FF/PF Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
50PF	6.4 kg	2.7 kg	9.1 kg
[20FF]	[14 lb]	[6 lb]	[20 lb]
75PF	13.6 kg	5.9 kg	27.2 kg
[30FF]	[30 lb]	[13 lb]	[60 lb]
100PF	15.9 kg	9.1 kg	46.3 kg
[40FF]	[35 lb]	[20 lb]	[102 lb]
125PF	31.8 kg	25.8 kg	74.8 kg
[50FF]	[70 lb]	[55 lb]	[165 lb]

Holding capacities shown "N [lbf]"

FF/PF Round Flatfoot Vacuum Cups Ordering Information

Imperial	
Ø2.00"	CPI-20FF-(M)-(DR)
Ø3.00"	CPI-30FF-(M)-(DR)
Ø4.00"	CPI-40FF-(M)-(DR)
Ø 5.00 "	CPI-50FF-(M)-(DR)

(DR) = Durometer

30 45 60

(M) = Mounts Available

K B C D (40FF) (50FF) E

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Ø 50 mm	CPI-50PF-(M)-(DR)
Ø 75mm	CPI-75PF-(M)-(DR)
Ø100mm	CPI-100PF-(M)-(DR)
Ø125mm	CPI-125PF-(M)-(DR)

(DR) = Durometer







Vacuum Products | Dimensions | Ordering Information

AC/BT Round Belcup



Specifications:

Temperature:

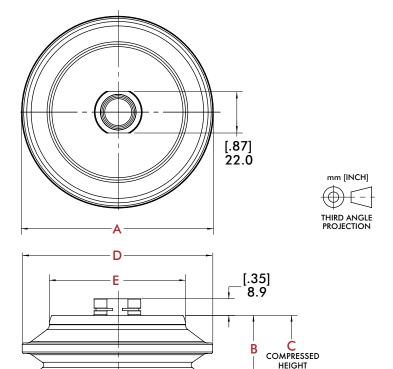
15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

Material: Nitrile Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol

ACU INDEX | STATE | S





AC/BT Round Belcup

Model	Α	В	С	D	E	Weight
40BT	41.1	25.9	11.9	41.1	31.8	35 g
[15AC]	[1.62]	[1.02]	[.47]	[1.63]	[1.25]	[1.2 oz]
50BT	57.4	37.4	18.3	57.9	38.1	57 g
[20AC]	[2.26]	[1.47]	[.72]	[2.28]	[1.50]	[2.0 oz]
75BT	78.9	38.8	19.8	80.0	56.6	91 g
[30AC]	[3.11]	[1.53]	[.78]	[3.15]	[2.23]	[3.2 oz]
100BT	102.4	37.8	18.6	101.6	72.6	159 g
[40AC]	[4.03]	[1.49]	[.73]	[4.00]	[2.85]	[5.6 oz]
125BT	127.0	38.1	19.0	127.0	97.8	232 g
[50AC]	[5.00]	[1.50]	[.75]	[5.00]	[3.85]	[8.2 oz]
Dimensions	shown "m	m [inch]"				

AC/BT Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
40BT	2.7 kg	1.4 kg	3.6 kg
[15AC]	[6 lb]	[3 lb]	[8 lb]
50BT	3.9 kg	2.0 kg	11.8 kg
[20AC]	[8.5 lb]	[4.5 lb]	[26 lb]
75BT	5.4 kg	2.7 kg	25.4 kg
[30AC]	[12 lb]	[6 lb]	[56 lb]
100BT	15.0 kg	3.6 kg	40.4 kg
[40AC]	[33 lb]	[8 lb]	[89 lb]
125BT	24.0 kg	6.8 kg	62.6 kg
[50AC]	[53 lb]	[15 lb]	[138 lb]

Holding capacities shown "N [lbf]"

AC/BT Round Belcup Vacuum Cups Ordering Information

 Ø40mm
 CPI-40BT-(M)-(DR)

 Ø50mm
 CPI-50BT-(M)-(DR)

 Ø75mm
 CPI-75BT-(M)-(DR)

 Ø100mm
 CPI-100BT-(M)-(DR)

 Ø125mm
 CPI-125BT-(M)-(DR)

Imperial	
Ø1.50"	CPI-15AC-(M)-(DR)
Ø2.00"	CPI-20AC-(M)-(DR)
Ø3.00"	CPI-30AC-(M)-(DR)
Ø4.00"	CPI-40AC-(M)-(DR)
Ø5 00"	CPL-50AC-(M)-(DR)

(DR) = Durometer

(M) = Mounts Available



M8F	20AC
-----	------



(DR	= Durometer
>	45 60
(M)	= Mounts Availabl

B C M10



Vacuum Products | Dimensions | Ordering Information

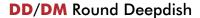
Specifications:

Temperature:

15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

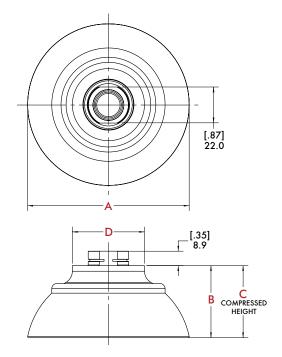
Material: Nitrile Chemical Resistance:

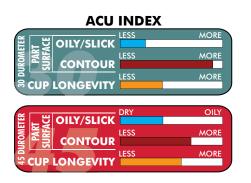
Oil, water, grease, hydraulic fluid, alcohol











DD/DM Round Deepdish

Model	Α	В	С	D	Weight
50DM	50.8	29.1	18.3	38.1	40 g
[20DD]	[2.00]	[1.14]	[.72]	[1.50]	[1.4 oz]
75DM	76.2	40.4	24.3	44.0	57 g
[30DD]	[3.00]	[1.59]	[.96]	[1.73]	[2.0 oz]
100DM	101.6	44.5	20.8	44.5	96 g
[40DD]	[4.00]	[1.75]	[.82]	[1.75]	[3.4 oz]

Dimensions shown "mm [inch]"

DD/DM Vacuum Cup Capacities:

Appl.	Hor. Dry	Hor. Wet	Ver. Lift
50DM	4.1 kg	3.2 kg	5.4 kg
[20DD]	[9 lb]	[7 lb]	[12 lb]
75DM	6.4 kg	2.7 kg	9.1 kg
[30DD]	[14 lb]	[6 lb]	[20 lb]
100DM	11.3 kg	3.2 kg	15.8 kg
[40DD]	[25 lb]	[7lb]	[35 lb]

Holding capacities shown "N [lbf]"

DD/DM Round Deepdish Vacuum Cups Ordering Information

Imperial

Ø2.00" CPI-20DD-(M)-(DR) Ø3.00" CPI-30DD-(M)-(DR) Ø4.00" CPI-40DD-(M)-(DR)

(DR) = Durometer



(M) = Mounts Available

(K) (B) (C)

٨	V	1	е	t	r	i	C
	_		_		_		

Ø50mm CPI-50DM-(M)-(DR) **Ø75mm** CPI-**75DM**-(**M**)-(**DR**) Ø100mm CPI-100DM-(M)-(DR)

(DR) = Durometer 30 45











Vacuum Products | Dimensions | Ordering Information

FF/PF Oval FlatFoot



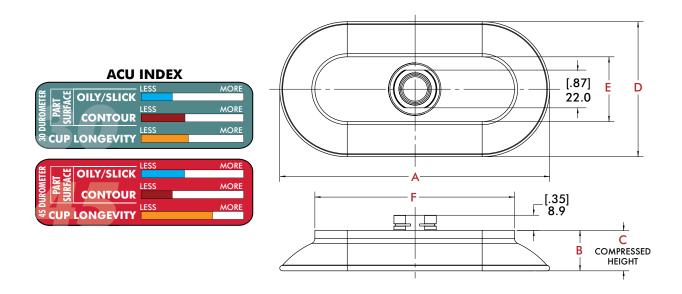
Specifications:

Temperature:

15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

Material: Nitrile Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



FF/PF Oval Flatfoot

FF/PF Vacuum Cup Capacities:

Model	Α	В	С	D	E	F	Weight	Appl.	Hor. Dry	Hor. Wet	Ver. Lift
40-75PF	76.2	22.3	16.2	38.1	22.2	60.3	35 g	40-75PF	6.8 kg	2.3 kg	8.2 kg
[153FF]	[3.00]	[.88]	[.64]	[1.50]	[.88]	[2.37]	[1.2 oz]	[153FF]	[15 lb]	[5 lb]	[18 lb]
50-100PF	101.6	23.8	16.2	50.8	22.2	73.0	119 g	50-100PF	8.2 kg	2.7 kg	19.1 kg
[24FF]	[4.00]	[.94]	[.64]	[2.00]	[.88]	[2.88]	[4.2 oz]	[24FF]	[18 lb]	[6 lb]	[42 lb]
60-125PF	127.0	22.3	16.2	63.5	22.2	85.7	147 g	60-125PF	20.4	3.2 kg	25 kg
[255FF]	[5.00]	[.88]	[.64]	[2.50]	[.88]	[3.38]	[5.2 oz]	[255FF]	[45 lb]	[7 lb]	[55 lb]
75-150PF	152.9	25.4	18.3	76.2	38.1	114.3	201 g	75-150PF	24.9	4.1 kg	32.7 kg
[36FF]	[6.00]	[1.00]	[.72]	[3.00]	[1.50]	[4.50]	[7.1 oz]	[36FF]	[55 lb]	[9 lb]	[72 lb]
Dimensions show	vn "mm [ir	nch]"						Holding capa	cities shown "	N [lbf]"	

FF/PF Oval FlatFoot Vacuum Cups Ordering Information

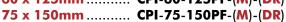
Imperial 1.50" x 3.00" 2.00" x 4.00" 2.50" x 5.00" 3.00" x 6.00"	CPI-255FF-(M)-(DR)
(DR) = Durometer 30 45 (M) = Mounts Available	







EE-VAC | 19



Metric

40 x 75mm CPI-40-75PF-(M)-(DR) 50 x 100mm CPI-50-100PF-(M)-(DR) 60 x 125mm CPI-60-125PF-(M)-(DR)

(DR) = Durometer











DD/DM Oval Deepdish

Vacuum Products | Dimensions | Ordering Information

Specifications:

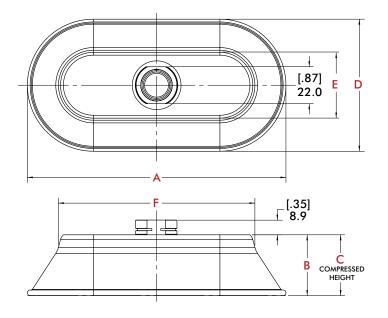
Temperature:

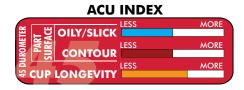
15-59 Sec: -20° to 250° F [-29° to 121° C] 1-5 min: 15° to 180° F [-9° to 82° C]

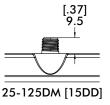
Material: Nitrile Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol









DD/DM Oval Deepdish

Mode	el	Α	В	С	D	E	F	Weight
25-125	DM 12	28.7	17.1	8.7	27.0	12.9	114.5	35 g
[15DE)] [5	5.06]	[.67]	[.34]	[1.06]	[.51]	[4.51]	[1.2 oz]
75-150	DM 1	55.8	36.7	16.51	79.6	39.7	118.4	201 g
[36DI)] [6	5.13]	[1.44]	[.65]	[3.13]	[1.56]	[4.65]	[7.1 oz]

Dimensions shown "mm [inch]"

DD/DM Vacuum Cup Capacities:

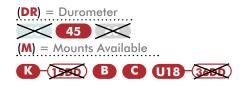
Appl.	Hor. Dry	Hor. Wet	Ver. Lift
25-125DM	10.0 kg	3.2 kg	15.9 kg
[15DD]	[22 lb]	[7 lb]	[35 lb]
75-150DM	24.9 kg	10.4 kg	63.1 kg
[36DD]	[55 lb]	[23 lb]	[139 lb]

Holding capacities shown "N [lbf]"

DD/DM Oval Deepdish Vacuum Cups Ordering Information

Imperial 1.00" x 5.00"..... CPI-15DD-(M)-(45)

25 x 125mm CPI-25-125DM-(M)-(45) 75 x 150mm CPI-75-150DM-(M)-(45)





Vacuum Products | Dimensions | Ordering Information

MFF Round Flat



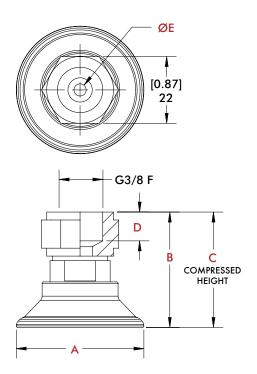
Specifications:

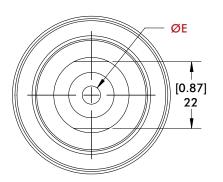
Temperature:

Resistant up to 250° C [482° F] (sheet metal temperature) Material: Silicone free HT2

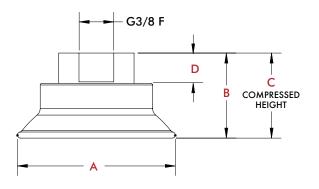
Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol









MFF Dimensions

Model	Α	В	С	D	E	Weight
30MFF	[1.34]	[1.42]	[1.30]	[0.35]	[0.16]	[1.64 oz]
	34	36	33	9	4	46.5 g
40 MFF	[1.81]	[1.50]	[1.34]	[0.35]	[0.16]	[1.77 oz]
	46	38	34	9	4	50.1 g
50 MFF	[2.20]	[1.10]	[0.91]	[0.59]	[0.24]	[1.35 oz]
	56	28	23	15	6	38.2 g
60MFF	[2.64]	[1.22]	[0.98]	[0.59]	[0.24]	[0.95 oz]
	67	31	25	15	6	27 g

Dimensions shown "mm [inch]"

MFF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
30MFF	[8.5]	[6.7]	[6.3]
	38	30	28
40 MFF	[15.5]	[11.7]	[11.2]
	69	52	50
50 MFF	[22.5]	[18.0]	[17.1]
	100	80	76
60MFF	[33.7]	[23.6]	[19.1]
	150	105	85

Holding capacities shown "N [lbf]"

MFF Round Flat Ordering Information

 Ø30mm
 CPI-30MFF-B-HT

 Ø40mm
 CPI-40MFF-B-HT

 Ø50mm
 CPI-50MFF-B-HT

 Ø60mm
 CPI-60MFF-B-HT



MTC Round Bellows

Vacuum Products | Dimensions | Ordering Information

Specifications:

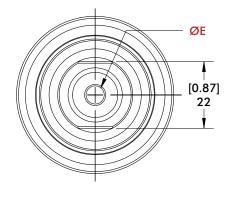
Temperature:

Resistant up to 250° C [482° F] (sheet metal temperature) Material: Silicone free HT2

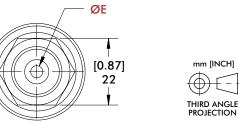
Chemical Resistance:

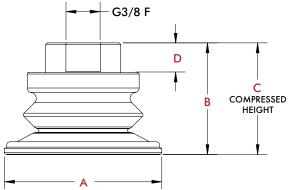
Oil, water, grease, hydraulic fluid, alcohol

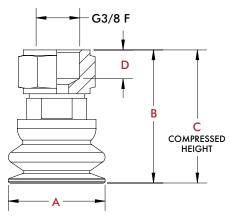












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M	ч	C	Di	m	e	n	SI	0	n	S

MIC DIM	ensions					
Model	Α	В	С	D	E	Weight
22 MTC	[0.87]	[1.61]	[1.39]	[0.35]	[0.14]	[1.54 oz]
	22	41	35.2	9.5	3.5	43.6 g
30 MTC	[1.34]	[1.73]	[1.38]	[0.35]	[0.16]	[1.74 oz]
	34	44	35	9	4	49.3 g
40 MTC	[1.77]	[1.73]	[1.34]	[0.35]	[0.16]	[1.79 oz]
	45	44	34	9	4	50.8 g
50 MTC	[2.20]	[1.46]	[1.00]	[0.59]	[0.24]	[1.40 oz]
	56	37	25.5	15	6	39.6 g
60 MTC	[2.64]	[1.63]	[1.06]	[0.59]	[0.24]	[1.83 oz]
	67	41.5	27	15	6	51.8 g

Dimensions shown "mm [inch]"

MTC Holding Capacity @ -0.6 bar vacuum

711010	ing capacii) (5) 0.0 00	
Appl.	Vert. Lift	Horz. Dry	Horz. Wet
22 MTC	[3.6]	[4.0]	[1.3]
	16	18	6
30 MTC	[4.9]	[6.7]	[2.9]
	22	30	13
40 MTC	[8.5]	[8.1]	[7.4]
	38	36	33
50 MTC	[11.9]	[12.4]	[11.7]
	53	55	52
60 MTC	[18.4]	[18.4]	[17.3]
	82	82	77

Holding capacities shown "N [lbf]"

MTC Round Bellows Ordering Information

Ø22mm	CPI-22MTC-B-HT
Ø30mm	CPI-30MTC-B-HT
Ø40mm	CPI-40MTC-B-HT
Ø50mm	CPI-50MTC-B-HT
Ø60mm	CPI-60MTC-B-HT

Vacuum Products | Dimensions | Ordering Information

MFF Oval Flat



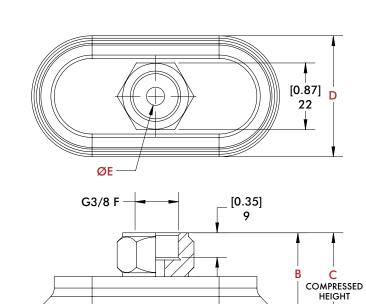
Specifications:

Temperature:

Resistant up to 250° C [482° F] (sheet metal temperature) Material: Silicone free HT2

Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol





MFF Dimensions

MFF Dimens	ions					
Model	Α	В	С	D	Ε	Weight
6023 MFF	[2.52] 64	[1.02] 26	[0.91] 23	[0.98] 25	[0.24]	[1.57 oz] 44.6 g
9030 MFF	[3.70] 94	[1.06] 27	[0.94] 24	[1.34] 34	[0.24]	[2.42 oz] 68.5 g
8040 MFF	[3.35] 85	[1.10] 28	[0.94] 24	[1.69] 43	[0.24]	[2.30 oz] 65.1 g
10050MFF	[4.17] 106	[1.22] 31	[1.02] 26	[2.13] 54	[0.31] 8	[3.68 oz] 104.2 g

Dimensions shown "mm [inch]"

MFF Holding Capacity @ -0.6 bar vacuum

Appl.	Vert. Lift	Horz. Dry	Horz. Wet
6023 MFF	[12.8]	[8.3]	[7.4]
	57	37	33
9030 MFF	[27.4]	[21.6]	[14.4]
	122	96	64
8040 MFF	[31.5]	[24.7]	[22.5]
	140	110	100
10050MFF	[48.8]	[40.7]	[27.2]
	217	181	121

Holding capacities shown "N [lbf]"

MFF Oval Flat Ordering Information

Ø60x23mm	CPI- 6023MFF -B-HT
Ø90x30mm	CPI- 9030MFF -B-HT
Ø 80 x 40 mm	CPI- 8040MFF -B-HT
Ø100x50mm	CPI-10050MFF-B-HT



Vacuum Products | Dimensions | Ordering Information

Specifications:

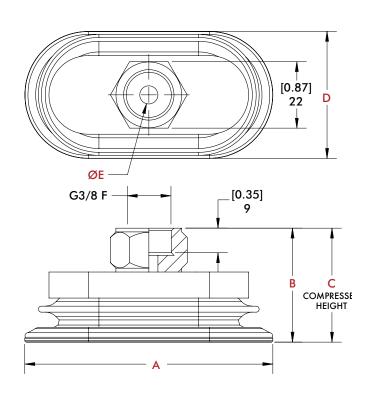
MAC Oval Bellows

Temperature:

Resistant up to 250° C [482° F] (sheet metal temperature) Material: Silicone free HT2 Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol







MAC Dimensions

MAC DIFFER	210112					
Model	Α	В	С	D	E	Weight
6030 MAC	[2.48] 63	[1.38] 35	[1.10] 28	[1.30] 33	[0.24]	[2.32 oz] 65.9 g
8040 MAC	[3.27] 83	[1.48] 37.7	[1.13] 28.7	[1.69] 43	[0.24]	[2.78 oz] 78.7 g

Dimensions shown "mm [inch]"

MAC Holding Capacity @ -0.6 bar vacuum

Model	Vert. Lift	Horz. Dry	Horz. Wet
6030 MAC	[8.5]	[12.8]	[11.7]
	38	57	52
8040 MAC	[14.6]	[22.5]	[21.3]
	65	100	95

Holding capacities shown "N [lbf]"

MAC Oval Bellows Ordering Information

Metric

Ø60x30mm CPI-**6030MAC**-B-HT **Ø80x40mm** CPI-**8040MAC**-B-HT



MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

VC-F Round Flat



Applications:

- Relatively flat surfaces.
- Dry to moderate oily/slippery surfaces.
- Low Compression distances.
- Higher precision applications.

Specifications:

Material Operating Temperature:

Viton: -40° to 450° F [-40° to 232° C]

Silicone: -100° to 400° F [-73° to 204.4° C]

Nitrile: -40° to 275° F [-40° to 135° C] Durometer: A50

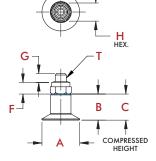
ACU INDEX



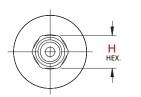
CLIDEACE	DTH
SURFACE LESS MG	ORE
CONTOUR CONTOUR	
CUP LONGEVITY LESS MC	ORE



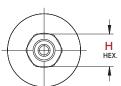
M5 (10-32) MALE

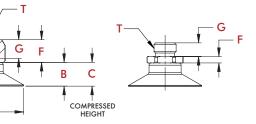


G1/8 FEMALE









(DR) = Durometer/Material



Viton Hi-Temp Applications where silicon is not allowed



Silicon Extremely hot or cold environments



Nitrile General Purpose



VC-F Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5)	5.1	4.1	7.9
(10-32 MALE)	[.20]	[.16]	[.31]
18M (G1/8)	2.8	5.8	14.2
(MALE)	[.11]	[.23]	[.56]
18F (G1/8)	9.9	6.4	14.2
(FEMALE)	[.39]	[.25]	[.56]

VC-F Dimensions

Model	Α	В	С	CUP WT	LOAD
VC- F15	16.5 [.65]	11.4 [.45]	10.4 [.41]	3.4 g [.11 oz]	.85 kg [1.88 lb]
VC- F20	22.1 [.87]	8.6 [.34]	7.1 [.28]	7.8 g [.25 oz]	1.47 kg [3.25 lb]
VC- F30	32.0 [1.26]	10.4 [.41]	8.1 [.32]	6.2 g [.20 oz]	2.55 kg [5.63 lb]
VC- F40	42.2 [1.66]	14.0 [.55]	11.4 [.45]	11.8 g [.38 oz]	4.08 kg [9.00 lb]
VC- F50	53.1 [2.08]	17.5 [.69]	14.5	19.6 g	7.54 kg

VC-F Round Flag Ordering Information

Ø15mm	VC-F15(DR)-(M)
Ø20mm	VC- F20(DR)-(M)
Ø30mm	VC-F30(DR)-(M)
Ø40mm	VC-F40(DR)-(M)
Ø50mm	VC-F50(DR)-(M)
(DR) = Durometer/Material	(M) = Mounts Available
	10W 10W 10F



Not Available in Ø15 and Ø20mm



Only Available in





MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

Applications:

- Moderately flat surfaces.
- Best performance on dry surfaces.
- Moderate compression distance.
- Bellows allows for minor misalignments.

Specifications:

Material Operating Temperature:

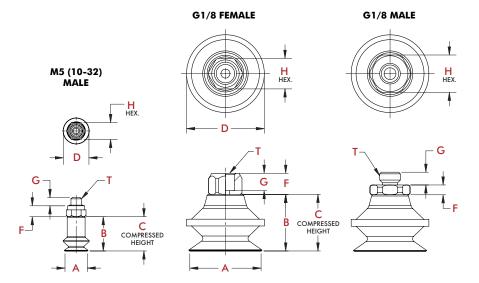
Viton: -40° to 450° F [-40° to 232° C]

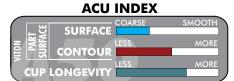
Silicone: -100° to 400° F [-73° to 204.4° C] Nitrile: -40° to 275° F

[-40° to 135° C] Durometer: A50



VC-B Micro Series Round Bellows







병	SURFACE	SMOOTH
PART SURFA	CONTOUR	MORE
	LESS	MORE
CUP	LONGEVITY	

VC-B Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5)	5.1	4.1	7.9
(10-32 MALE)	[.20]	[.16]	[.31]
18M (G1/8)	2.8	5.8	14.2
(MALE)	[.11]	[.23]	[.56]
18F (G1/8)	9.9	6.4	14.2
(FEMALE)	[.39]	[.25]	[.56]

(**DR**) = Durometer/Material





Nitrile General Purpose

VC-B Dimensions

Model	Α	В	С	D	Cup Wt	Load
VC- B05	5.6	9.1	7.6	6.1	5.8 g	.04 kg
VC-В03	[.22]	[.36]	[.30]	[.24]	[.09 oz]	[.10 lb]
VC- B10	10.9	16.0	11.4	12.2	3.4 g	.39 kg
VC-BIU	[.43]	[.63]	[.45]	[.48]	[.11 oz]	[.87 lb]
VC- B15	16.0	19.8	13.2	17.5	3.7 g	.57 kg
VC-В13	[.63]	[.78]	[.52]	[.69]	[.12 oz]	[1.25 lb]
VC- B20	22.4	17.5	7.6	23.9	6.2 g	1.02 kg
VC-B20	[.88]	[.69]	[.30]	[.94]	[.20 oz]	[2.25 lb]
VC- B30	34.0	26.4	11.4	36.3	11.5 g	.2.21 kg
VC- ВЗ О	[1.34]	[1.04]	[.45]	[1.43]	[.37 oz]	[4.88 lb]
VC- B40	42.9	27.4	12.4	46.2	18.7 g	3.97 kg
VC-B40	[1.69]	[1.08]	[.49]	[1.82]	[.60 oz]	[8.75 lb]
VC- B50	52.8	34.5	14.5	59.4	30.5 g	6.63 kg
₹ C- B 30	[2.08]	[1.36]	[.57]	[2.34]	[.98 oz]	[14.6 lb]

VC-B Micro Series Round Multi-**Bellows Ordering Information**

Ø05mm VC- B 0	05(DR)-(M)
Ø10mm VC- B	10(DR)-(M)
Ø15mm VC- B	15(DR)-(M)
Ø20mm VC- B 2	20(DR)-(M)
Ø30mm VC- B 3	30(DR)-(M)
Ø40mm VC- B 4	40(DR)-(M)
Ø50mm VC- B 3	50(DR)-(M)

(DR) = Durometer/Material



Only Available in Ø5, Ø10, Ø15, Ø20mm

MICRO SERIES VACUUM CUPS

Vacuum Products | Dimensions | Ordering Information

VC-BM Micro Series Round Multi-Bellows



Applications:

- Angled/curved/bumpy surfaces.
- Best performance on dry surfaces.
- Higher compression distance. (Reach in Box)
- Bellows allow for minor
- Provides Partial extraction.

Specifications:

Material Operating Temperature:

Viton: -40° to 450° F [-40° to 232° C]

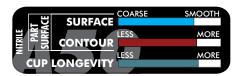
Silicone: -100° to 400° F

[-73° to 204.4° C] Nitrile: -40° to 275° F [-40° to 135° C]

Durometer: A50

ACU INDEX









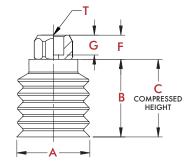
Silicon Extremely hot or cold environments



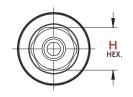
Nitrile General Purpose

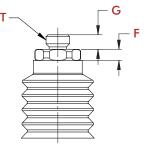
G1/8 FEMALE





G1/8 MALE





VC-BM Micro Fitting Threads

Thread (T)	(F)	(G)	(H)
10M (M5) (10-32 MALE)	5.1 [.20]	4.1 [.16]	7.9 [.31]
18M (G1/8)	2.8	5.8	14.2
(MALE)	[.11]	[.23]	[.56]
18F (G1/8)	9.9	6.4	14.2
(FEMALE)	[.39]	[.25]	[.56]

VC-BM Dimensions

VC BITTOTISIONS						
Model	Α	В	С	Cup Wt	Load	
VC-BM 20	20.1	21.9	8.9	5.3 g	.68 kg	
	[.79]	[.86]	[.35]	[17 oz]	[1.50 lb]	
VC-BM 30	30.0	30.7	10.7	10.3 g	1.64 kg	
	[1.18]	[1.21]	[.42]	[.33 oz]	[3.63 lb]	
V(BM40	39.8	40.9	12.9	19.6 g	2.21 kg	
	[1.57]	[1.61]	[.51]	[.63 oz]	[4.88 lb]	
VC-BM 50	50.0	51.1	23.1	32.7 g	4.37 kg	
	[1.97]	[2.01]	[.91]	[1.05 oz]	[9.63 lb]	

VC-BM Micro Series Round Multi-Bellows Ordering Information





Ø20mm

