



ALUMINUM TECHNOLOGY

DE-STA-CO VACUUM PRODUCTS

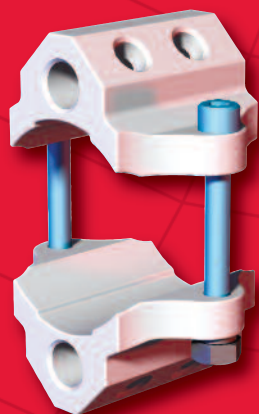
MARCH 2009



Vacuum Cups



Cup Mounts



Manifolds

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Vacuum Products

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US Patent# 7,309,089

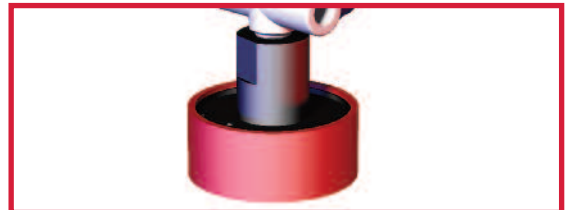
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*Round Flatfoot Vacuum Cup (CPI-40FF-B-45) shown with the
ARV-Auto Release Venturi (CPI-VSA-ARVR-750-U38) Cup Mount.*

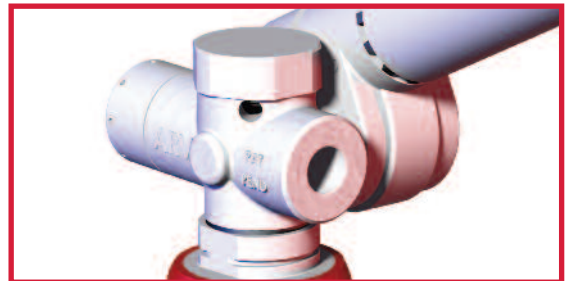
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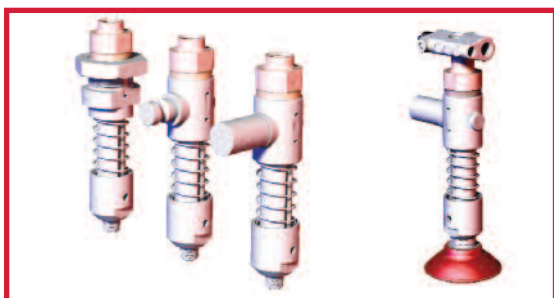
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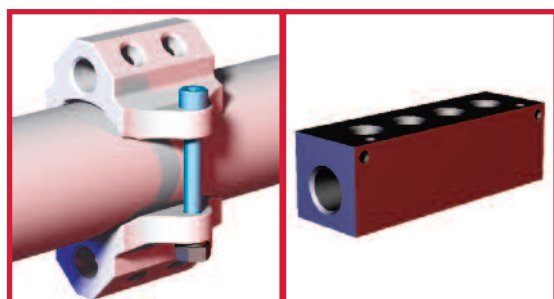
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Vacuum Cups

Vacuum Cup 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 patent-pending stress relief port.



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.



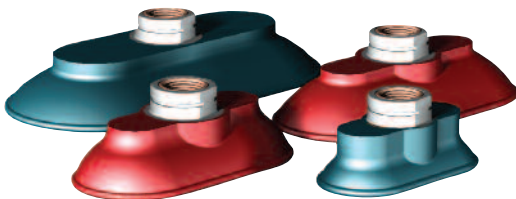
Round Belcup Vacuum Cups

- 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.

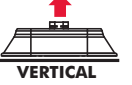
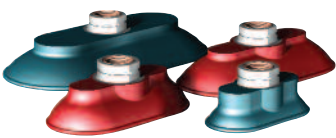


Oval Deepdish Vacuum Cups

- 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.

Vacuum Cups

Best Vacuum Cup for the Job

Vacuum Cup Family	DESTACKER APPLICATION	FLAT CONTOURS	MILD CONTOURS	HIGH CONTOURS	SLICK/OILY SURFACES	DRY SURFACES	Application Direction
 Destacker Vacuum Cups	 5	5	N/A	N/A	3	5	 VERTICAL
	N/A	N/A	N/A	N/A	N/A	N/A	 HORIZONTAL
 Round Traction Vacuum Cups	4	5	4	2	5	5	 VERTICAL
	N/A	5	3	1	5	5	 HORIZONTAL
 Round Flatfoot Vacuum Cups	4	4	5	3	4	4	 VERTICAL
	N/A	4	5	3	4	4	 HORIZONTAL
 Round Belcup Vacuum Cups	4	5	4	2	3	4	 VERTICAL
	N/A	3	3	1	2	4	 HORIZONTAL
 Round Deepdish Vacuum Cups	1	1	3	5	3	3	 VERTICAL
	N/A	1	3	5	3	3	 HORIZONTAL
 Oval Deepdish Vacuum Cups	1	3	4	2	4	3	 VERTICAL
	N/A	3	4	2	3	3	 HORIZONTAL
 Oval Flatfoot Vacuum Cups	3	4	3	1	4	4	 VERTICAL
	N/A	4	3	1	3	4	 HORIZONTAL

Worst Cup for the Job **1** **2** **3** **4** **5** Best Cup for the Job **(N/A)** Not Advised for the application

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

Vacuum Cups

Durometer and Mounting Options

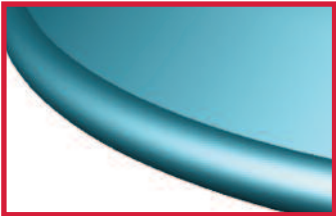


US Patent# 7,309,089

DE-STA-CO 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))



30

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. Vacuum cups of this durometer will have the longest life span.

 = 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

Metric Vacuum Cup Mounting Options ("M")



1/4" G



3/8" G



1.25" SQUARE

Specialty Vacuum Cup Mounting Options ("M")



M10 MALE



M8 FEMALE



QUICK
DISCONNECT



SMOOTH BORE

M  = Mount only available in this cup size.

M  = Mount not available in this cup size.

Vacuum Cups

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)?

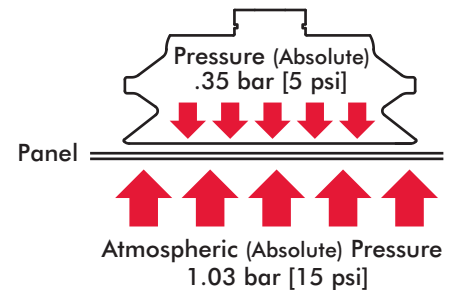


A set of vacuum cups of the same size and type, each having different durometers may handle oily/slick or contoured parts differently. However, cup longevity of each may be affected as a result of durometer, application and usage. The ACU Index is a reference shown with each type of vacuum cup and is 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

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

w = Weight of Panel
f = 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)

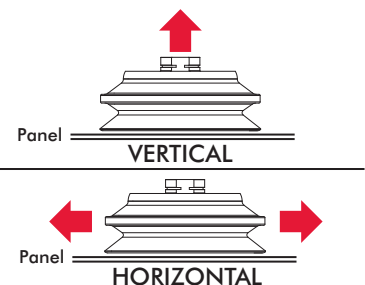
Starting with Ideal conditions (2), add each additional conditions to determine total safety factor.

For example:

Ideal conditions:	2
Fast moving robots:	+1
Flexing Panel:	+2
Total Safety Factor	5

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

Relative Cup Motion



Destacker Stress Relieving Vacuum Cups

Dimensions and Ordering Information

Max Lifting Capacity:

75DC [30DC]:

@ .51 bar [15 inHg]: 15 kg [33.8 lb]

@ .68 bar [20 inHg]: 21 kg [45.2 lb]

@ .85 bar [25 inHg]: 26 kg [56.5 lb]

100DC [40DC]:

@ .51 bar [15 inHg]: 31 kg [68.5 lb]

@ .68 bar [20 inHg]: 40 kg [87.7 lb]

@ .85 bar [25 inHg]: 49 kg [107.3 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

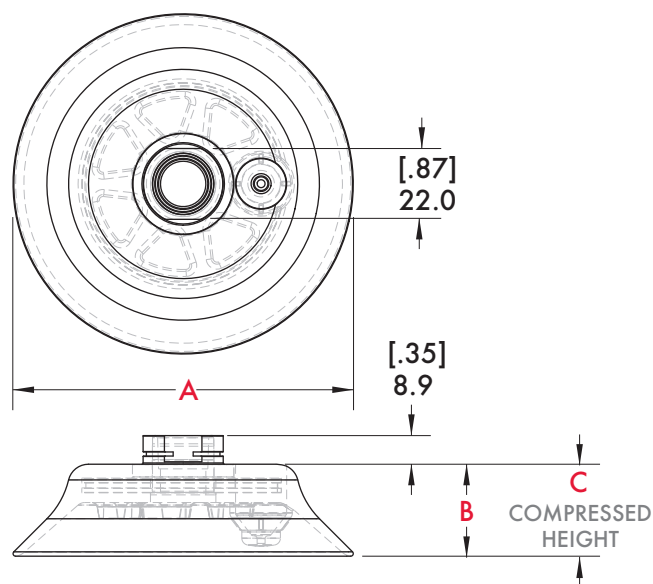
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol

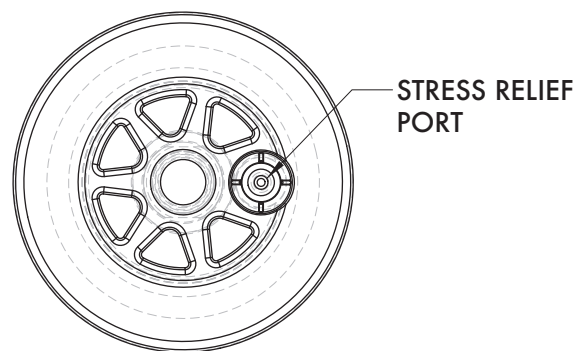


DESTACKER STRESS-RELIEVING

MODEL	"A"	"B"	"C"	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]

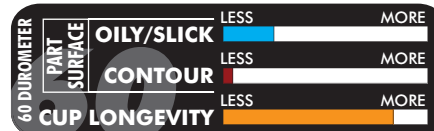


US Patent# 7,309,089



STRESS RELIEF
PORT

ACU INDEX



IMPERIAL ORDERING INFORMATION

Ø3.00" CPI - 30DC - "M" - 60

Ø4.00" CPI - 40DC - "M" - 60

DR = DUROMETER

60

M = MOUNTS AVAILABLE

K B C D E1

METRIC ORDERING INFORMATION

Ø75 mm CPI - 75DC - "M" - 60

Ø100 mm CPI - 100DC - "M" - 60

DR = DUROMETER

60

M = MOUNTS AVAILABLE

A B C

Round Traction Vacuum Cups

Dimensions and Ordering Information



Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
90HT [35TC]	13.6 kg [30 lb]	9.1 kg [20 lb]	29.9 kg [66 lb]
115HT [45TC]	20.4 kg [45 lb]	13.6 kg [30 lb]	46.7 kg [103 lb]
140HT [55TC]	45.5 kg [100 lb]	20.4 kg [45 lb]	74.4 kg [164 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

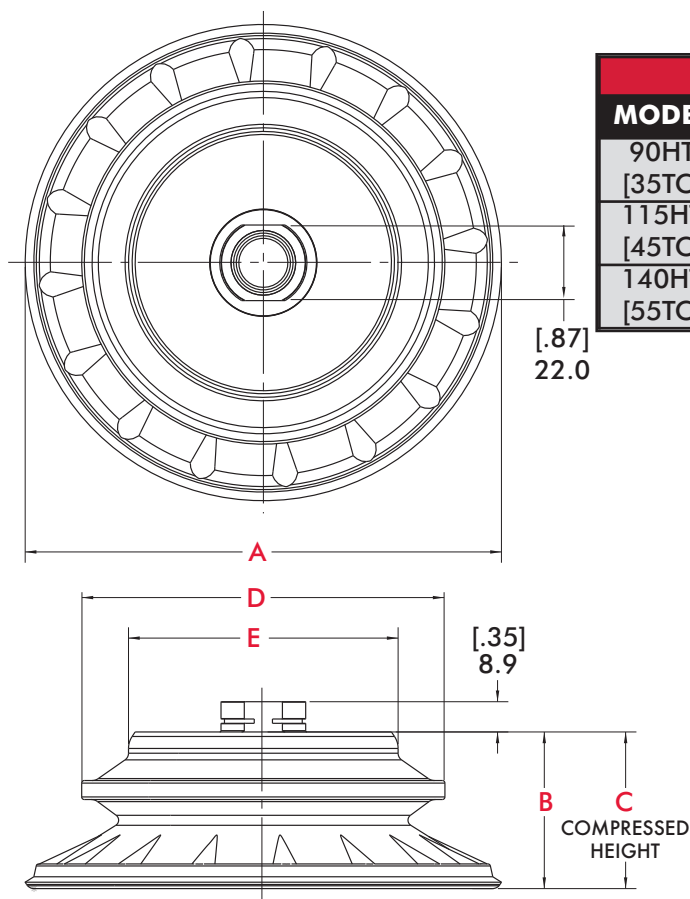
[-29° to 121° C]

1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

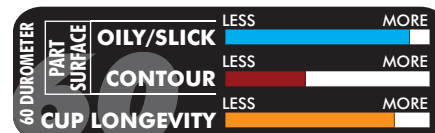
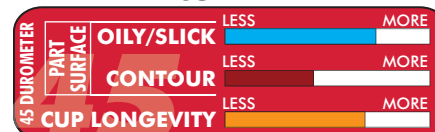
Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol


ROUND TRACTION

MODEL	"A"	"B"	"C"	"D"	"E"	WEIGHT
90HT [35TC]	88.9 [3.50]	43.44 [1.71]	20.8 [.82]	63.5 [2.50]	41.9 [1.65]	73 g [2.6 oz]
115HT [45TC]	114.3 [4.50]	46.1 [1.81]	22.1 [.87]	82.4 [3.25]	57.2 [2.25]	125 g [4.4 oz]
140HT [55TC]	139.7 [5.50]	46.1 [1.81]	22.1 [.87]	101.4 [4.00]	77.1 [3.04]	204 g [7.2 oz]

ACU INDEX



IMPERIAL ORDERING INFORMATION

Ø3.50" CPI - 35TC - "M" - "DR"

Ø4.50" CPI - 45TC - "M" - "DR"

Ø5.50" CPI - 55TC - "M" - "DR"

DR = DUROMETER

45 60

M = MOUNTS AVAILABLE

K B C D E1



METRIC ORDERING INFORMATION

Ø90mm CPI - 90HT - "M" - "DR"

Ø115mm CPI - 115HT - "M" - "DR"

Ø140mm CPI - 140HT - "M" - "DR"

DR = DUROMETER

45 60

M = MOUNTS AVAILABLE

A B C



Round Flatfoot Vacuum Cups

Dimensions and Ordering Information

Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
50PF [20FF]	6.4 kg [14 lb]	2.7 kg [6 lb]	9.1 kg [20 lb]
75PF [30FF]	13.6 kg [30 lb]	5.9 kg [13 lb]	27.2 kg [60 lb]
100PF [40FF]	15.9 kg [35 lb]	9.1 kg [20 lb]	46.3 kg [102 lb]
125PF [50FF]	31.8 kg [70 lb]	25.8 kg [55 lb]	74.8 kg [165 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

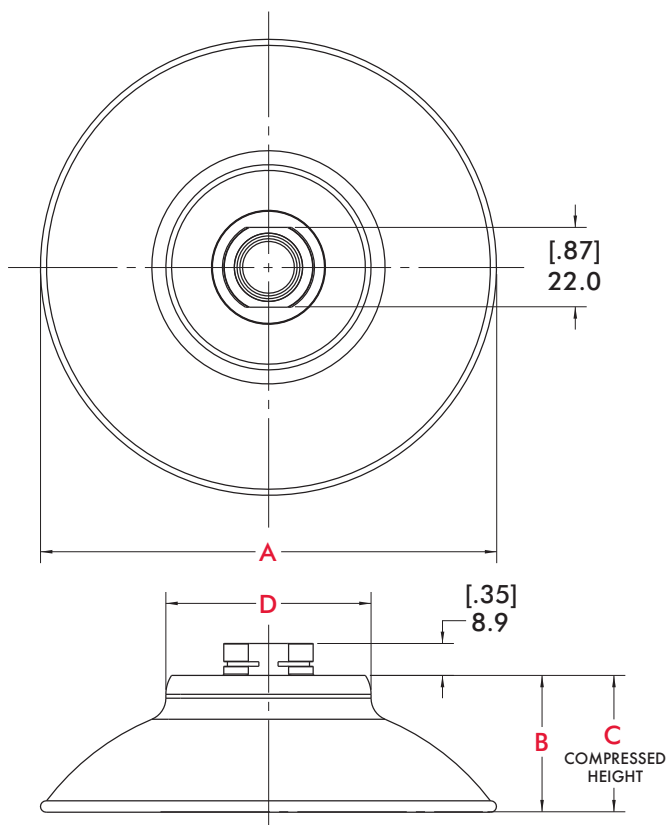
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

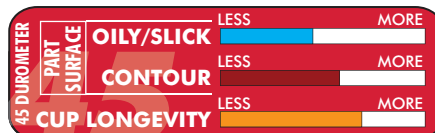
Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol



ROUND FLATFOOT					
MODEL	"A"	"B"	"C"	"D"	WEIGHT
50PF [20FF]	50.8 [2.00]	22.5 [.89]	13.0 [.51]	19.1 [.75]	40 g [1.4 oz]
75PF [30FF]	76.2 [3.00]	25.4 [1.00]	18.2 [.72]	39.6 [1.56]	57 g [2.0 oz]
100PF [40FF]	101.6 [4.00]	33.3 [1.31]	22.2 [.88]	39.6 [1.56]	96 g [3.4 oz]
125PF [50FF]	127.0 [5.00]	38.2 [1.50]	25.4 [1.00]	57.2 [2.25]	159 g [5.6 oz]

ACU INDEX



IMPERIAL ORDER INFORMATION

Ø2.00" CPI - 20FF - "M" - "DR"

Ø3.00" CPI - 30FF - "M" - "DR"

Ø4.00" CPI - 40FF - "M" - "DR"

Ø5.00" CPI - 50FF - "M" - "DR"

DR = DUROMETER

30 45 60

M = MOUNTS AVAILABLE

K B C D 40FF 50FF E1



METRIC ORDERING INFORMATION

Ø50mm CPI - 50PF - "M" - "DR"

Ø75mm CPI - 75PF - "M" - "DR"

Ø100mm CPI - 100PF - "M" - "DR"

Ø125mm CPI - 125PF - "M" - "DR"

DR = DUROMETER

30 45 60

M = MOUNTS AVAILABLE

A B C



CC Series Round Flatfoot Vacuum Cups

Dimensions and Ordering Information



Applications:

- In automotive applications, this cup is used primarily for stabilizing a panel where typical vacuum cups cannot be used during transfer.
- In industrial manufacturing, this cup is ideal for use in light-duty applications such as light appliance manufacturing and can be used in some plastic injection molding processes.

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

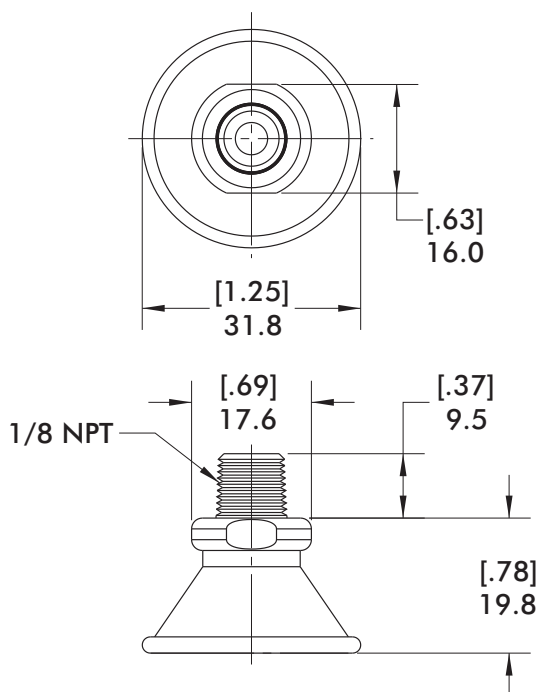
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

Chemical Resistance:

Oil, water, grease, hydraulic fluid, alcohol



WEIGHT

8.5 g [0.3 oz.]

ACU INDEX

60 DUROMETER PART SURFACE	OILY/SLICK	LESS	MORE
	CONTOUR	LESS	MORE
	CUP LONGEVITY	LESS	MORE

ORDERING INFORMATION

Ø1.25" **CPI - 10CC - U18 - 60**



Round Belcup Vacuum Cups

Dimension and Ordering Information

Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
40BT [15AC]	2.7 kg [6 lb]	1.4 kg [3 lb]	3.6 kg [8 lb]
50BT [20AC]	3.9 kg [8.5 lb]	2.0 kg [4.5 lb]	11.8 kg [26 lb]
75BT [30AC]	5.4 kg [12 lb]	2.7 kg [6 lb]	25.4 kg [56 lb]
100BT [40AC]	15.0 kg [33 lb]	3.6 kg [8 lb]	40.4 kg [89 lb]
125BT [50AC]	24.0 kg [53 lb]	6.8 kg [15 lb]	62.6 kg [138 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

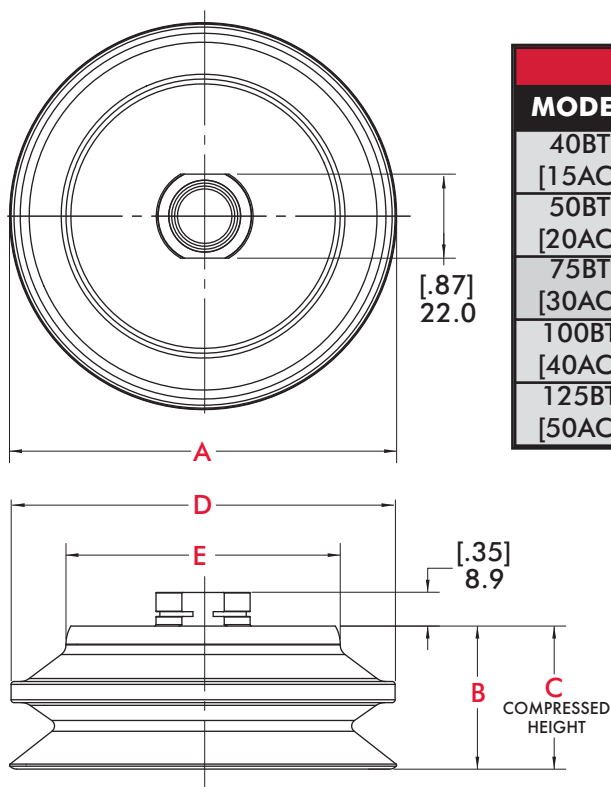
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

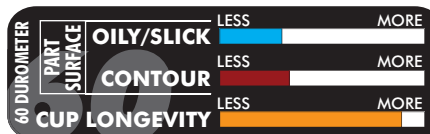
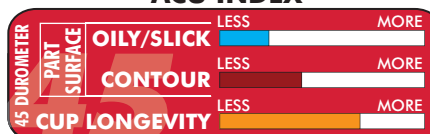
Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol



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

ACU INDEX



IMPERIAL ORDERING INFORMATION

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" CPI - 50AC - "M" - "DR"

DR = DUROMETER

45 60

M = MOUNTS AVAILABLE

K B C D ~~15AC~~ ~~20AC~~ E1 ~~15AC~~



METRIC 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"

DR = DUROMETER

45 60

M = MOUNTS AVAILABLE

A B C M10



Round Deepdish Vacuum Cups

Dimensions and Ordering Information



Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
50DM [20DD]	4.1 kg [9 lb]	3.2 kg [7 lb]	5.4 kg [12 lb]
75DM [30DD]	6.4 kg [14 lb]	2.7 kg [6 lb]	9.1 kg [20 lb]
100DM [40DD]	11.3 kg [25 lb]	3.2 kg [7 lb]	15.8 kg [35 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

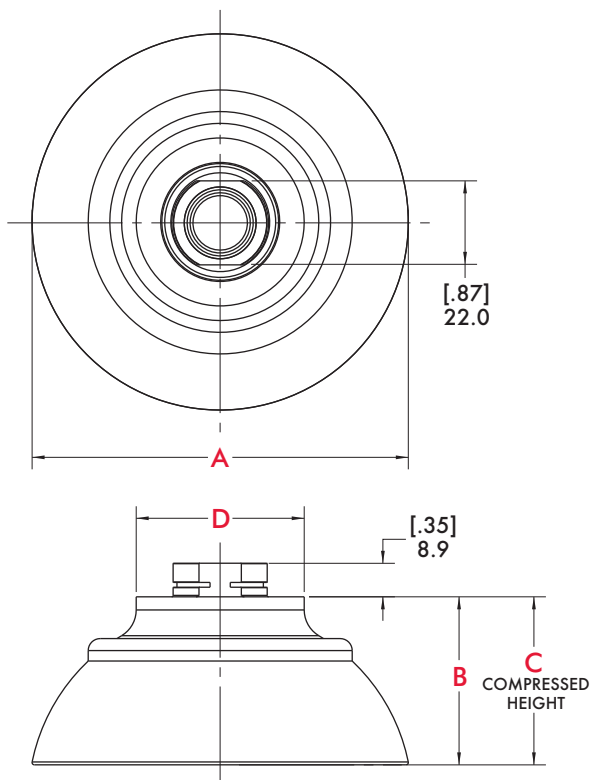
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

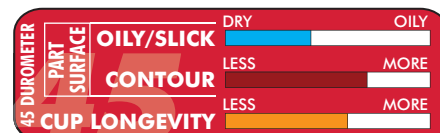
Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol



ROUND DEEPDISH					
MODEL	"A"	"B"	"C"	"D"	WEIGHT
50DM [20DD]	50.8 [2.00]	29.1 [1.14]	18.3 [.72]	38.1 [1.50]	40 g [1.4 oz]
75DM [30DD]	76.2 [3.00]	40.4 [1.59]	24.3 [.96]	44.0 [1.73]	57 g [2.0 oz]
100DM [40DD]	101.6 [4.00]	44.5 [1.75]	20.8 [.82]	44.5 [1.75]	96 g [3.4 oz]

ACU INDEX



IMPERIAL ORDERING INFORMATION

Ø2.00" CPI - 20DD - "M" - "DR"

Ø3.00" CPI - 30DD - "M" - "DR"

Ø4.00" CPI - 40DD - "M" - "DR"

DR = DUROMETER

30 45 ~~30~~

M = MOUNTS AVAILABLE

K B C



METRIC ORDERING INFORMATION

Ø50mm CPI - 50DM - "M" - "DR"

Ø75mm CPI - 75DM - "M" - "DR"

Ø100mm CPI - 100DM - "M" - "DR"

DR = DUROMETER

30 45 ~~30~~

M = MOUNTS AVAILABLE

A B C



Oval FlatFoot Vacuum Cups

Dimensions and Ordering Information

Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
40-75PF [153FF]	6.8 kg [15 lb]	2.3 kg [5 lb]	8.2 kg [18 lb]
50-100PF [24FF]	8.2 kg [18 lb]	2.7 kg [6 lb]	19.1 kg [42 lb]
60-125PF [255FF]	20.4 [45 lb]	3.2 kg [7 lb]	25 kg [55 lb]
75-150PF [36FF]	24.9 [55 lb]	4.1 kg [9 lb]	32.7 kg [72 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

[-29° to 121° C]

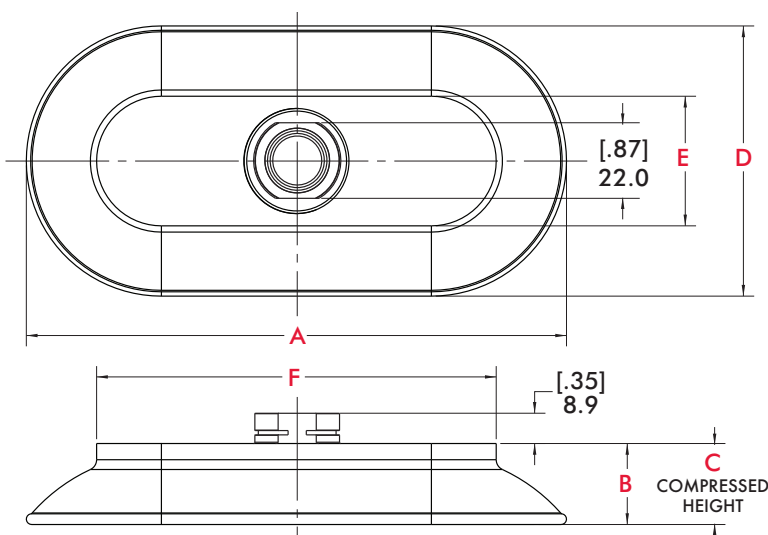
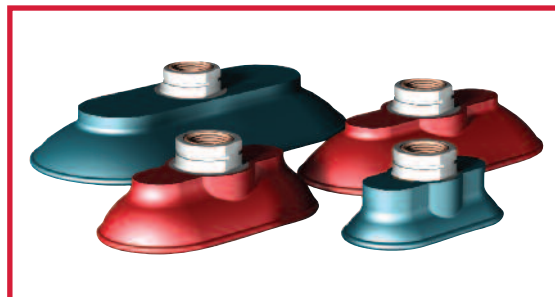
1-5 min: 15° to 180° F

[-9° to 82° C]

Material: Nitrile

Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol



ACU INDEX



OVAL FLATFOOT							
MODEL	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
40-75PF [153FF]	76.2 [3.00]	22.3 [.88]	16.2 [.64]	38.1 [1.50]	22.2 [.88]	60.3 [2.37]	35 g [1.2 oz]
50-100PF [24FF]	101.6 [4.00]	23.8 [.94]	16.2 [.64]	50.8 [2.00]	22.2 [.88]	73.0 [2.88]	119 g [4.2 oz]
60-125PF [255FF]	127.0 [5.00]	22.3 [.88]	16.2 [.64]	63.5 [2.50]	22.2 [.88]	85.7 [3.38]	147 g [5.2 oz]
75-150PF [36FF]	152.9 [6.00]	25.4 [1.00]	18.3 [.72]	76.2 [3.00]	38.1 [1.50]	114.3 [4.50]	201 g [7.1 oz]

IMPERIAL ORDERING INFORMATION

1.50" x 3.00" . . CPI - 153FF - "M" - "DR"

2.00" x 4.00" . . . CPI - 24FF - "M" - "DR"

2.50" x 5.00" . . CPI - 255FF - "M" - "DR"

3.00" x 6.00" . . . CPI - 36FF - "M" - "DR"

DR = DUROMETER

30 45

M = MOUNTS AVAILABLE

K B C D 24FF E1 24FF



METRIC ORDERING INFORMATION

40 x 75mm . . CPI - 40-75PF - "M" - "DR"

50 x 100mm CPI - 50-100PF - "M" - "DR"

60 x 125mm CPI - 60-125PF - "M" - "DR"

75 x 150mm CPI - 75-150PF - "M" - "DR"

DR = DUROMETER

30 45

M = MOUNTS AVAILABLE

A B C 60-125PF



Oval Deepdish Vacuum Cups

Dimensions and Ordering Information



Vacuum Cup Capacities:

APPL.	HOR. DRY	HOR. WET	VER. LIFT
25-125DM [15DD]	10.0 kg [22 lb]	3.2 kg [7 lb]	15.9 kg [35 lb]
75-150DM [36DD]	24.9 kg [55 lb]	10.4 kg [23 lb]	63.1 kg [139 lb]

Specifications:

Temperature:

15-59 Sec: -20° to 250° F

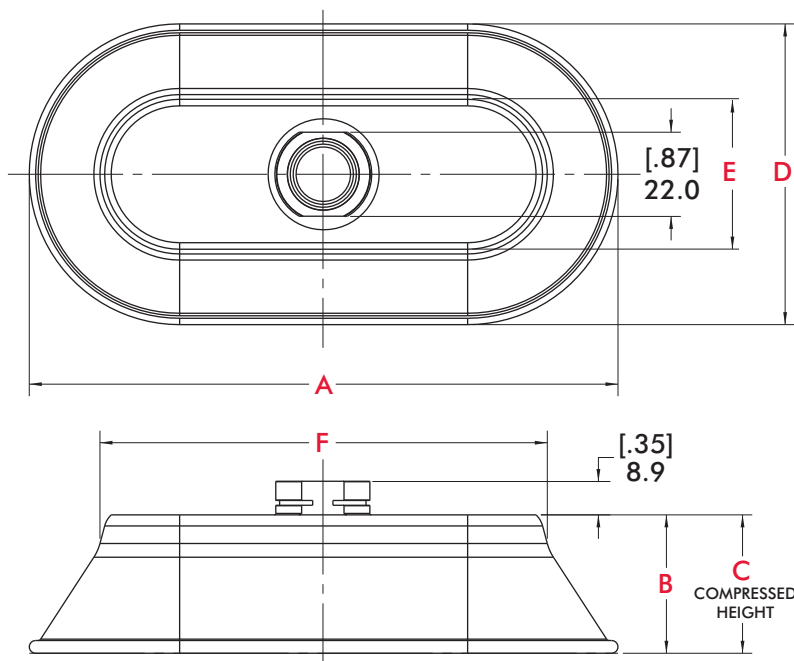
[-29° to 121° C]

1-5 min: 15° to 180° F

[-9° to 82° C]

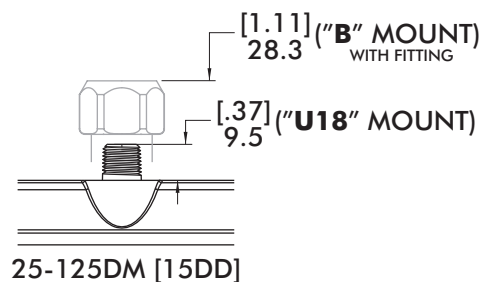
Material: Nitrile

Chemical Resistance:

Oil, water, grease,
hydraulic fluid, alcohol


ACU INDEX

45 DUROMETER PART SURFACE	OILY/SLICK	LESS	MORE
	CONTOUR	LESS	MORE
	CUP LONGEVITY	LESS	MORE



OVAL DEEPDISH							
MODEL	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
25-125DM [15DD]	128.7 [5.06]	17.1 [.67]	8.7 [.34]	27.0 [1.06]	12.9 [.51]	114.5 [4.51]	35 g [1.2 oz]
75-150DM [36DD]	155.8 [6.13]	36.7 [1.44]	16.51 [.65]	79.6 [3.13]	39.7 [1.56]	118.4 [4.65]	201 g [7.1 oz]

IMPERIAL ORDERING INFORMATION

1.00" x 5.00" ... CPI - 15DD - "M" - "45"
3.00" x 6.00" ... CPI - 36DD - "M" - "45"

DR = DUROMETER

~~45~~

M = MOUNTS AVAILABLE

~~K~~ ~~15DD~~ ~~B~~ ~~C~~ ~~U18~~ ~~36DD~~

CAD

METRIC ORDERING INFORMATION

25 x 125mm CPI - 25-125DM - "M" - "45"
75 x 150mm CPI - 75-150DM - "M" - "45"

DR = DUROMETER

~~45~~

M = MOUNTS AVAILABLE

~~A~~ ~~25-125DM~~ ~~B~~ ~~C~~ ~~U18~~ ~~75-150DM~~

CAD

Vacuum Cups

Application Photos



Round Traction
CPI-45TC-B-45 (Shown)



Round Deepdish
CPI-40DD-B-45 (Shown)



Oval Deepdish
CPI-15DD-B-45 (Shown)



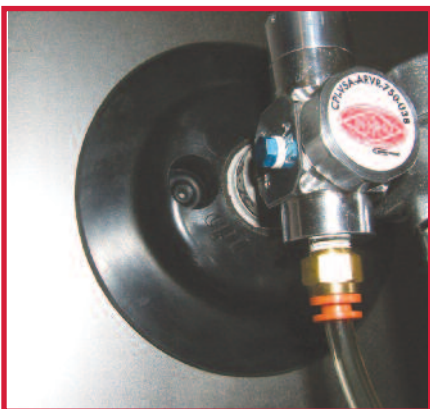
Round Belcup
CPI-30AC-B-45 (Shown)



Round Flatfoot
CPI-40FF-B-45 (Shown)



Oval Deepdish
CPI-36DD-B-45 (Shown)



Destacker Stress Relieving
CPI-40DC-B-60 (Shown)
US Patent# 7,309,089



CC Series Round Flatfoot
CPI-10CC-U18-60 (Shown)



Oval Flatfoot
CPI-36FF-B-45 (Shown)

Micro Series Round Flat Vacuum Cups

Dimensions and Ordering Information



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

Applications:

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

MICRO FITTING THREADS

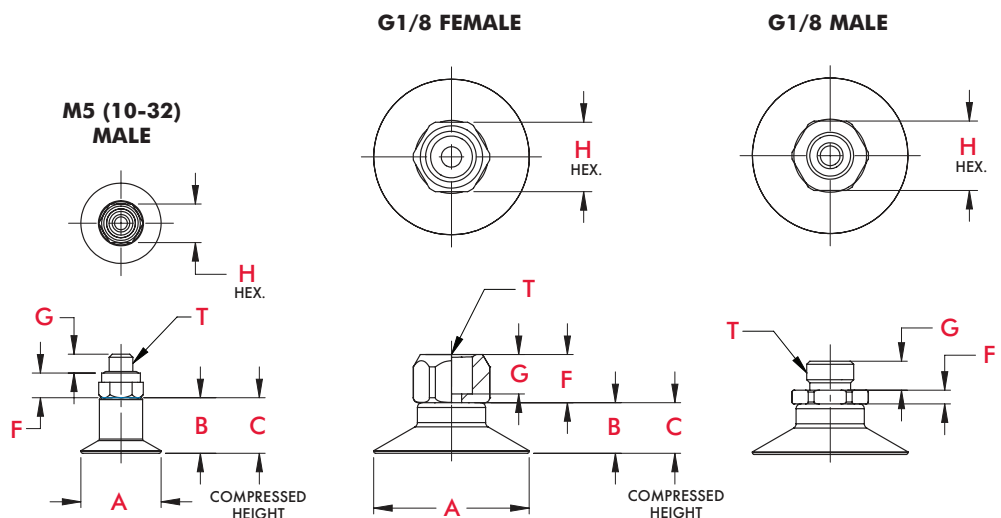
THREAD "T"	"F"	"G"	"H"
10M (M5) (10-32 MALE)	5.1 [.20]	4.1 [.16]	7.9 [.31]
18M (G1/8) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]

"M" = MATERIAL

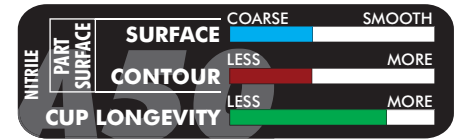
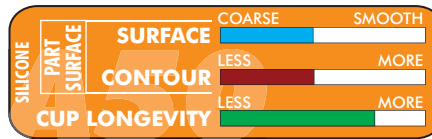
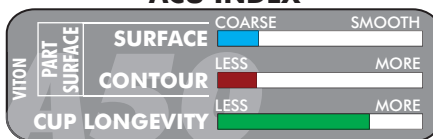
V Viton Hi-Temp Applications where silicon is not allowed

S Silicone Extremely hot or cold environments

N Nitrile General Purpose



ACU INDEX



MICRO SERIES ROUND FLAT VACUUM CUP

MODEL	"A"	"B"	"C"	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 [.57]	19.6 g [.63 oz]	7.54 kg [16.6 lb]

ORDERING INFORMATION

Ø15mm VC - F15"M" - "T"

Ø20mm VC - F20"M" - "T"

Ø30mm VC - F30"M" - "T"

Ø40mm VC - F40"M" - "T"

Ø50mm VC - F50"M" - "T"

"M" = MATERIAL

V **S** **N**

Not Available in
Ø15 and Ø20mm

"T" = THREAD

10M **18M** **18F**

Only Available in
Ø15 and Ø20mm

Micro Series Round Bellows Vacuum Cups

Dimension and 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



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) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]	
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]	

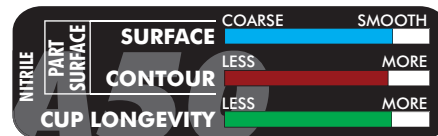
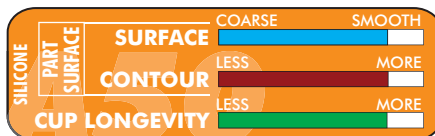
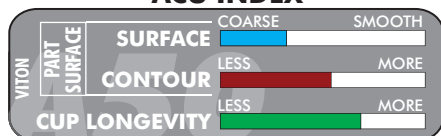
"M" = MATERIAL

V Viton Hi-Temp Applications where silicon is not allowed

S Silicone Extremely hot or cold environments

N Nitrile General Purpose

ACU INDEX

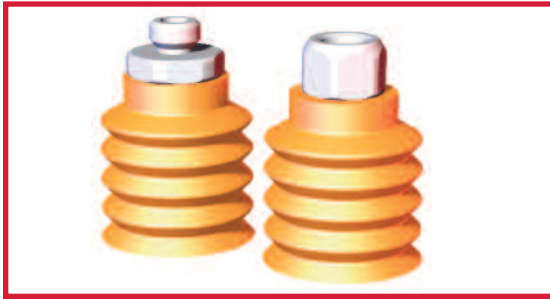


MICRO SERIES ROUND BELLWS VACUUM CUP						
MODEL	"A"	"B"	"C"	"D"	CUP WT	LOAD
VC-B05	5.6 [.22]	9.1 [.36]	7.6 [.30]	6.1 [.24]	5.8 g [.09 oz]	.04 kg [.10 lb]
VC-B10	10.9 [.43]	16.0 [.63]	11.4 [.45]	12.2 [.48]	3.4 g [.11 oz]	.39 kg [.87 lb]
VC-B15	16.0 [.63]	19.8 [.78]	13.2 [.52]	17.5 [.69]	3.7 g [.12 oz]	.57 kg [1.25 lb]
VC-B20	22.4 [.88]	17.5 [.69]	7.6 [.30]	23.9 [.94]	6.2 g [.20 oz]	1.02 kg [2.25 lb]
VC-B30	34.0 [1.34]	26.4 [1.04]	11.4 [.45]	36.3 [1.43]	11.5 g [.37 oz]	2.21 kg [4.88 lb]
VC-B40	42.9 [1.69]	27.4 [1.08]	12.4 [.49]	46.2 [1.82]	18.7 g [.60 oz]	3.97 kg [8.75 lb]
VC-B50	52.8 [2.08]	34.5 [1.36]	14.5 [.57]	59.4 [2.34]	30.5 g [.98 oz]	6.63 kg [14.6 lb]

ORDERING INFORMATION	
Ø05mm	VC - B05"M" - "T"
Ø10mm	VC - B10"M" - "T"
Ø15mm	VC - B15"M" - "T"
Ø20mm	VC - B20"M" - "T"
Ø30mm	VC - B30"M" - "T"
Ø40mm	VC - B40"M" - "T"
Ø50mm	VC - B50"M" - "T"
"M" = MATERIAL V S N "T" = THREAD 10M 18M 18F Only Available in Ø5, Ø10, Ø15, Ø20mm	

Micro Series Multi Bellows Vacuum Cups

Dimensions and Ordering Information



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

Applications:

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

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) (MALE)	2.8 [.11]	5.8 [.23]	14.2 [.56]
18F (G1/8) (FEMALE)	9.9 [.39]	6.4 [.25]	14.2 [.56]

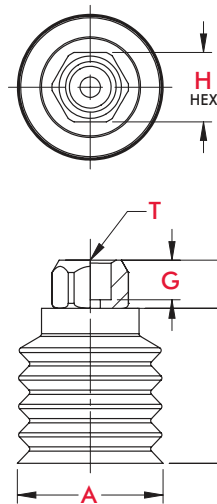
"M" = MATERIAL

V Viton Hi-Temp Applications
where silicon is not allowed

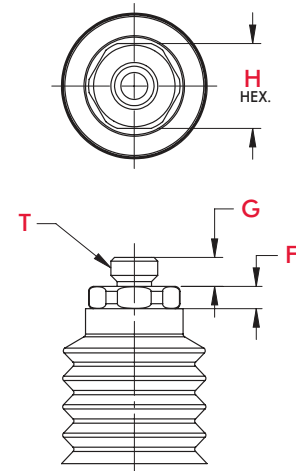
S Silicon Extremely hot or
cold environments

N Nitrile General Purpose

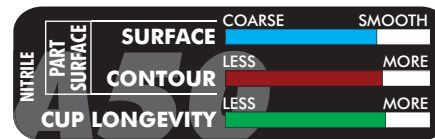
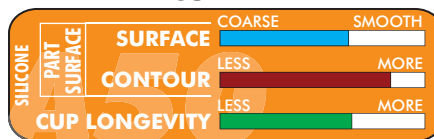
G1/8 FEMALE



G1/8 MALE



ACU INDEX



ORDERING INFORMATION

Ø20mm VC - BM20"M" - "T"

Ø30mm VC - BM30"M" - "T"

Ø40mm VC - BM40"M" - "T"

Ø50mm VC - BM50"M" - "T"

"M" = MATERIAL



"T" = THREAD



Only Available in
Ø20mm

MICRO SERIES MULTI BELLOWS VACUUM CUP

MODEL	"A"	"B"	"C"	CUP WT	LOAD
VC-BM20	20.1 [.79]	21.9 [.86]	8.9 [.35]	5.3 g [17 oz]	.68 kg [1.50 lb]
VC-BM30	30.0 [1.18]	30.7 [1.21]	10.7 [.42]	10.3 g [.33 oz]	1.64 kg [3.63 lb]
VC-BM40	39.8 [1.57]	40.9 [1.61]	12.9 [.51]	19.6 g [.63 oz]	2.21 kg [4.88 lb]
VC-BM50	50.0 [1.97]	51.1 [2.01]	23.1 [.91]	32.7 g [1.05 oz]	4.37 kg [9.63 lb]

DE-STA-CO Part Lifting Magnets

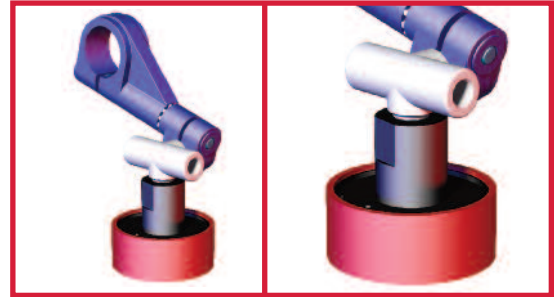
Mag-Lift Magnets Features and Dimensions

Features:

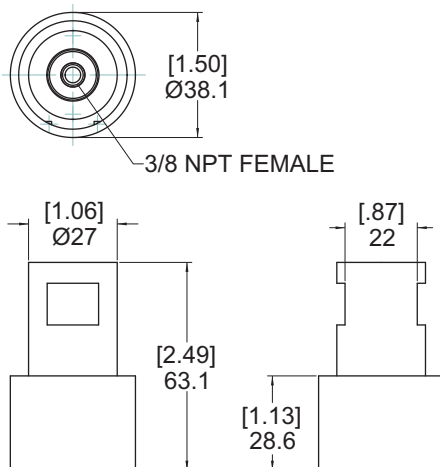
- Provides instantaneous pick up and release without electricity.
- Maintains positive hold, even if air pressure is lost.
- Supplied with urethane pad which softens the impact of the magnet and avoids marring or damage to delicate surfaces.

Benefits:

- NPT mount allows retrofit to existing assemblies.

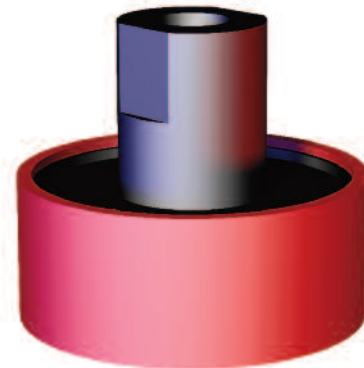
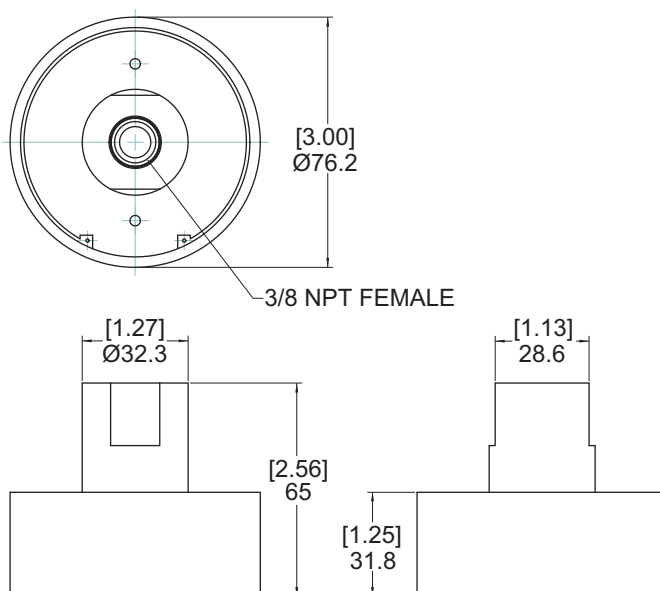


1.50" Diameter Mag-Lift Magnet



MODEL NUMBER	PAD ONLY
CPI-TPLP15RB	RB15-CPI

3.00" Diameter Mag-Lift Magnet



MODEL NUMBER	PAD ONLY
CPI-TPLP50373	RB30-CPI

DE-STA-CO Part Lifting Magnets

Mag-Lift Magnets Capacity and Operating Principle


Specifications:

Recommended Operating Pressure: 2.4 bar [35 psi]

Port: 3/8" NPT
Compressed Air Port

Material: Machined,
Anodized Aluminum,
Urethane Pad
(50 durometer - low skid)

Note: The minimum air pressure required for the Mag-Lift to release parts is 25 psi. The suggested air pressure for normal operation is 35 psi. If part do not release immediately, increase the air pressure in 5 psi increments until the part releases. Do not exceed 60 psi. Air pressure should be measured at the inlet of the Mag-Lift to ensure effective operation.

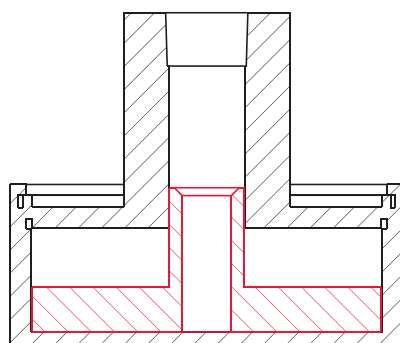
Mag-Lift Magnets Capacity

1.50" DIAMETER MAG-LIFT MAGNET - CPI-TPL15RB - CAPACITIES							
GAGE OF STEEL (FERROUS ONLY)	28 GA (0.009")	26 GA (0.018")	22 GA (0.030")	16 GA (0.050")	12 GA (0.100")	3/16" (0.187")	WEIGHT
WITH PAD	1.6 kg [3.5 lb]	2.0 kg [4.5 lb]	2.5 kg [5.5 lb]	2.3 kg [5.0 lb]	2.3 kg [5.0 lb]	2.0 kg [4.5 lb]	136g [5 oz]
WITHOUT PAD	2.5 kg [5.5 lb]	2.7 kg [6.0 lb]	3.6 kg [8.0 lb]	4.1 kg [9.0 lb]	4.1 kg [9.0 lb]	4.3 kg [9.5 lb]	136g [5 oz]

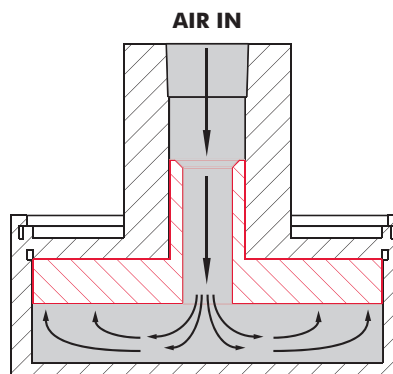
3.00" DIAMETER MAG-LIFT MAGNET - CPI-TPL50373 - CAPACITIES							
GAGE OF STEEL (FERROUS ONLY)	28 GA (0.009")	26 GA (0.018")	22 GA (0.030")	16 GA (0.050")	12 GA (0.100")	3/16" (0.187")	WEIGHT
WITH PAD	1.6 kg [3.5 lb]	3.4 kg [7.5 lb]	5.4 kg [12.0 lb]	5.4 kg [12.0 lb]	5.7 kg [12.5 lb]	5.7 kg [12.5 lb]	363g [13 oz]
WITHOUT PAD	2.5 kg [5.5 lb]	5.4 kg [12.0 lb]	8.8 kg [19.5 lb]	15.4 kg [34.0 lb]	16.1 kg [35.5 lb]	16.1 kg [35.5 lb]	363g [13 oz]

Note: Capacity values are stated at approximately 30% of the maximum holding value. Use this value for determining the quantity of Mag-Lift magnets required for an application.

Mag-Lift Magnets Operating Principle



PART TRANSFER MODE
NORMAL CONDITION
NO AIR REQUIRED



PART RELEASE MODE
AIR STATUS "ON"

Venturi and Spring Cup Mounts

Features and Specifications

The ARV Series

Auto-Release Venturi Cup Mount

Requiring (1) air line, (1) valve:

Offers integrated automatic quick panel release and exhaust silencer in one part. Mounting options include right or left hand apple core mounting or no apple core mount for use with DE-STA-CO's spring cup mounts.

The ARV Series is also available in a block style for remote mounting and each mount can be ordered with Imperial or Metric ports.



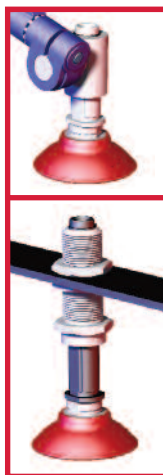
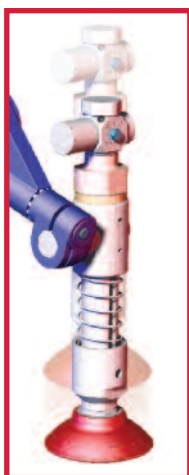
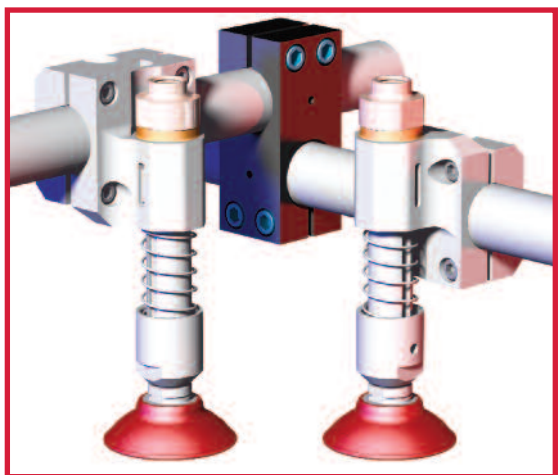
US PAT No: 7,540,309



The VSA Series Venturi Cup Mount

Can be ordered with or without blow-off. Blow-off typically requires two air lines and multiple valves. The VSA series offers a low-profile version as shown. Additional options includes silencer and sensor port options. Mounting threads can also be ordered in Imperial or Metric ports.

DE-STA-CO also offers PA Series cup mounts



Spring-Loaded Cup Mounts

Available both as a standard version and extended travel version. Both versions offer several mounting options and three different travel lengths.

DE-STA-CO spring-loaded cup mounts are designed to be used with ARV and VSA 000 series venturi vacuum generator cup mount and complete line of vacuum cups to offer a total vacuum system solution.

Venturi Cup Mount Specifications

ARV Series Vacuum Generators:

Specifications @ 4 bar [60psi]:

Speed to Vacuum: 0.2-0.3 seconds

Speed to Release: 0.02 seconds

Air Consumption:

Vacuum: 40 l/m [1.4 scfm]

Blow-off: 0

Noise Level (At one meter): 68dBA

Material: Aluminum

VSA Series Vacuum Generators:

Specifications @ 4 bar [60psi]:

Speed to Vacuum: .36 seconds

Speed to Release: 0.08 seconds

Air Consumption:

Vacuum: 40 l/m [1.4 scfm]

Blow-off: 2.6 liters [0.09 ft³] (156 l/m [5.5scfm] @ 1 sec. duration)

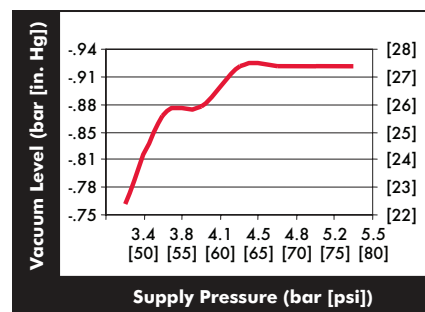
Noise Level (At one meter):

Inline to exhaust: 76dBA

Inline to exhaust with Silencer: 68dBA

Material: Aluminum

ARV and VSA Performance:



RH/LH Spherical Ball
CPI-VSA-ARV(R/L)-**B112**-(X)

(X)
Mounting
Thread
U38
3/8" NPT
G38
3/8" G

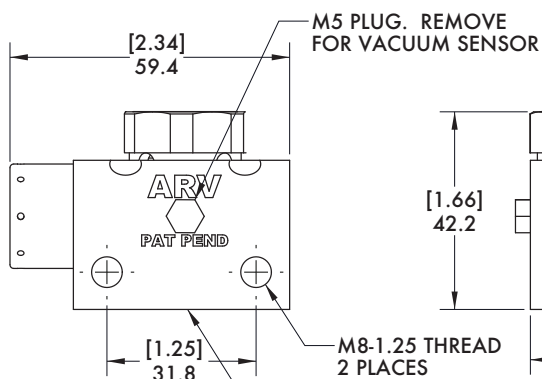
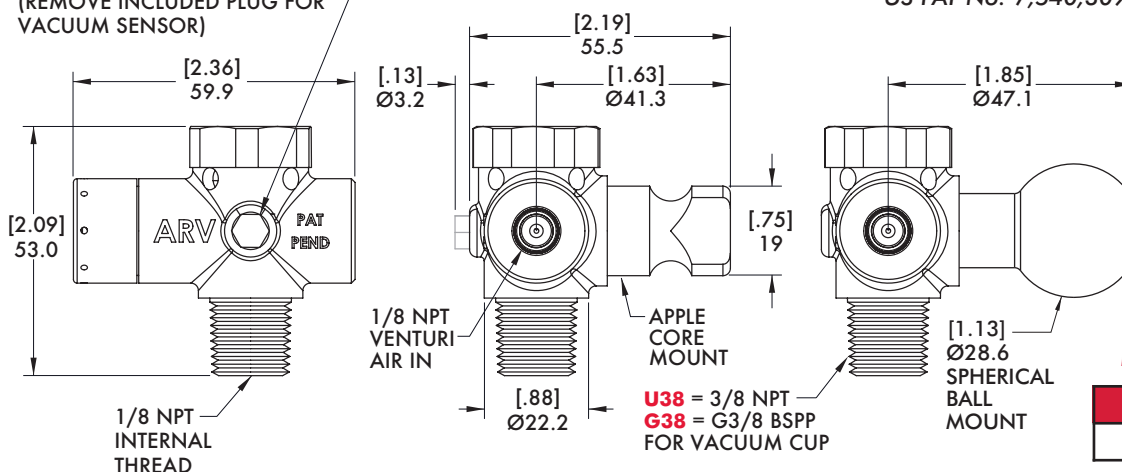
**Vacuum
Sensor Option**
Add "**-VS**" to
end of "**ARV**"
order code

Patent Pending

WEIGHT

114 g [4 oz.]

"VS" OPTION (M5 PORT/PLUG)
(REMOVE INCLUDED PLUG FOR
VACUUM SENSOR)



U38 = 3/8 NPT (INTERNAL)
G38 = G3/8 BSPP (INTERNAL)
 FOR VACUUM CONNECTION

US PAT No: 7,540,309

Block Style

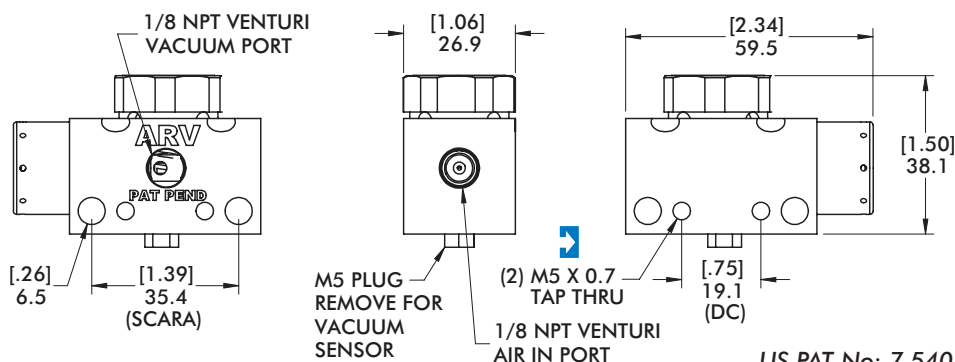
CPI-VSA-ARVR-312-(X)

(X)=Vacuum Port Thread

U38 = 3/8" NPT Imperial
G38 = 3/8" G Metric

WEIGHT

107g [4 oz.]



US PAT No: 7,540,309

SCARA Block Style

CPI-VSA-ARVS-5-U18

Also compatible with

Robohand
DIRECTCONNECT

WEIGHT

97.9g [3 oz.]

Venturi Style Vacuum Generator Cup Mounts

Low-Profile 750/19 Series Apple-Core Mounting with Blow-Off

Features:

- Low profile construction.
- Integrated blow-off.
- Optional vacuum sensing port.
- Optional exhaust silencer.
- Imperial or Metric ports.

Benefits:

- Lower tool profile to fit in smaller spaces.
- Quick release of panels.
- Vacuum level or part present sensing.
- Quiet operation.



Low-Profile 750/19
w/Blow Off No Options
CPI-VSA-(X)-BO-LP



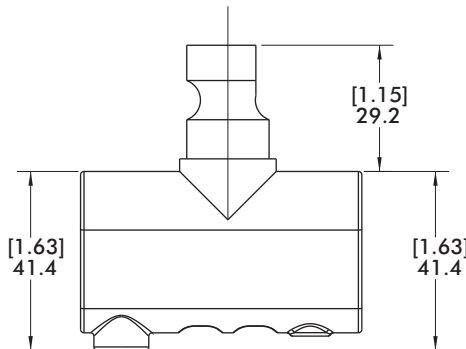
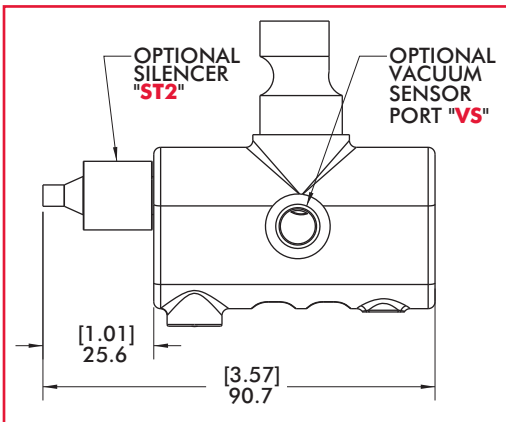
Low-Profile 750/19 with
Blow Off with Detector Option
CPI-VSA-(X)-BO-LP-DET



Low-Profile 750/19 with
Blow Off with "VS" Option
CPI-VSA-(X)-BO-LP-VS



For Silencer Option;
add "ST2" to the end
of order code (as shown).
CPI-VSA-(X)-BO-LP-VS-ST2



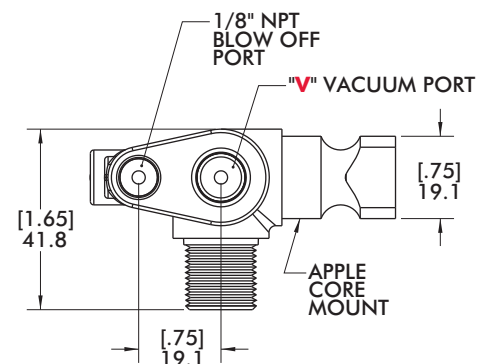
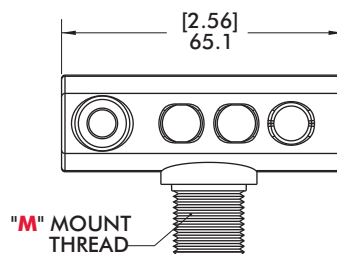
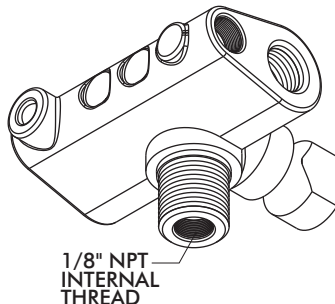
VS/DET THREAD

DET = M5

VS = 1/8 NPT

WEIGHT

170g [6 oz.]

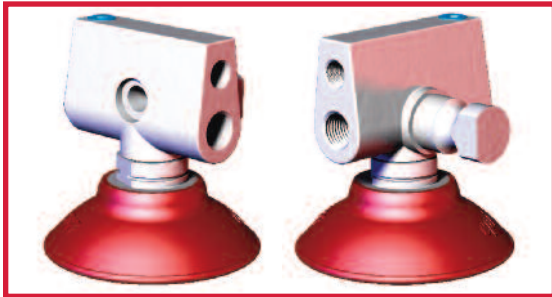


LOW PROFILE 750/19 SERIES W/BLOW-OFF - CPI-VSA-(X)-BO-LP

VERSION	Mount Thread "M"	Vacuum Port "V"	(X)
METRIC	3/8" G Male	1/4" G	19
IMPERIAL	3/8" NPT Male	1/4" NPT	750

Venturi Style Vacuum Generator Cup Mounts

750/19 Series Apple-Core Mounting with Blow Off



Features:

- Standard venturi/blow-off.
- Optional vacuum sensing port.

Benefits:

- Vacuum lever or part present sensing.
- Quiet operation.



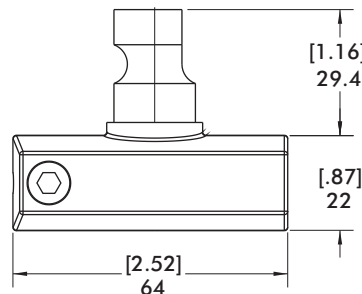
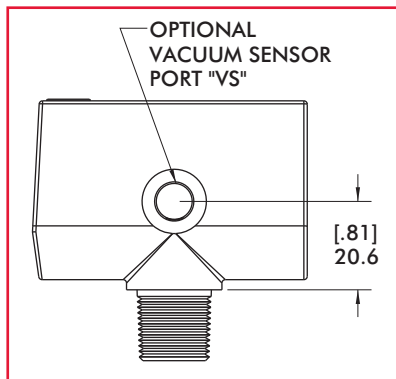
750/19 Series w/Blow Off
No Options
CPI-VSA-(X)-BO



750/19 Series w/Blow Off
with Detector Option
CPI-VSA-(X)-BO-DET

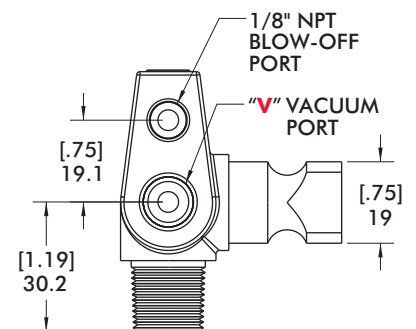
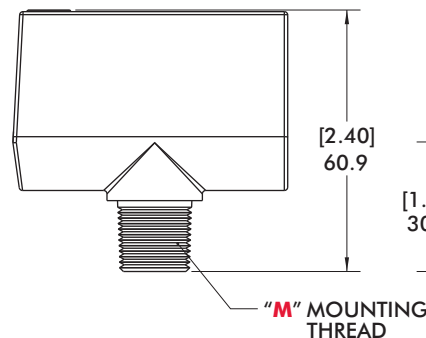
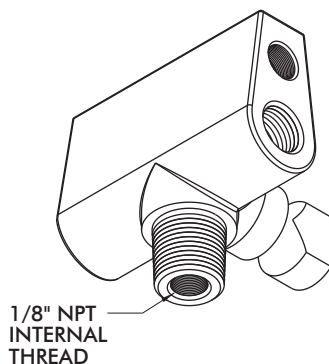


750/19 Series w/Blow Off
with "VS" Option
CPI-VSA-(X)-BO-VS



VS/DET THREAD
DET = M5
VS = 1/8 NPT

WEIGHT
170g [6 oz.]



750/19 SERIES VENTURI WITH BLOW OFF - CPI-VSA-(X)-BO			
VERSION	Mount Thread "M"	Vacuum Port "V"	(X)
METRIC	3/8" G Male	1/4" G	19
IMPERIAL	3/8" NPT Male	1/4" NPT	750

Venturi Style Vacuum Generator Cup Mounts

750/19 Series Apple-Core Mounting

Features:

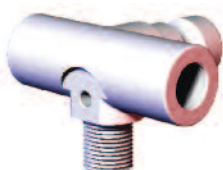
- Simple single line operation.
- Optional vacuum sensing port.
- Optional exhaust silencer.
- Imperial or Metric ports.

Benefits:

- Simple valving and plumbing.
- Vacuum level or part present sensing.
- Quiet operation.



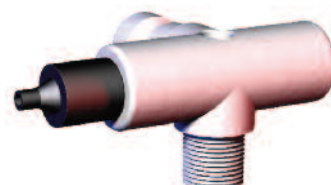
750/19 Series with
No Options
CPI-VSA-(X)



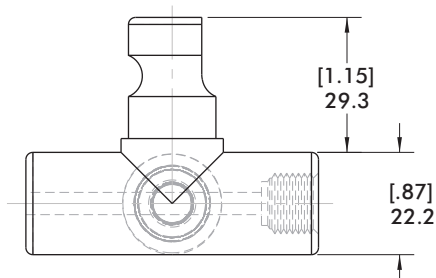
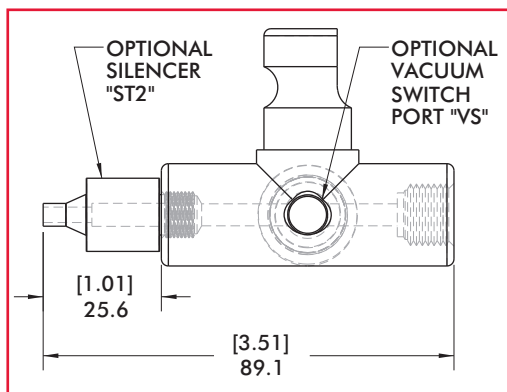
750/19 Series with
Detector Option
CPI-VSA-(X)-DET



750/19 Series with
"VS" Option
CPI-VSA-(X)-VS



For Silencer Option;
add "ST2" to the end
of order code (as shown).
CPI-VSA-(X)-VS-ST2



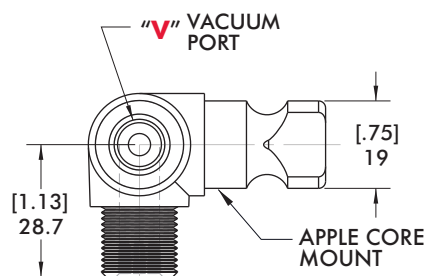
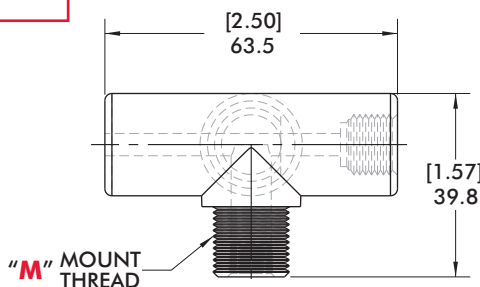
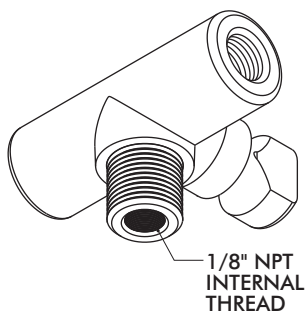
DET/VS THREAD

DET = M5

VS = 1/8 NPT

WEIGHT

85g [3 oz.]

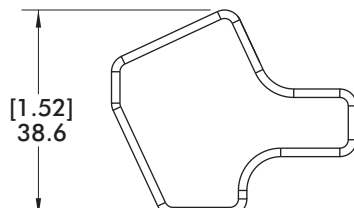
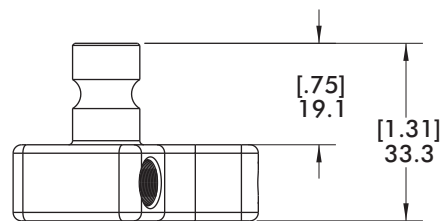


750/19 SERIES VENTURI CPI-VSA-(X)

VERSION	Mount Thread "M"	Vacuum Port "V"	(X)
METRIC	3/8" G Male	1/4" G	19
IMPERIAL	3/8" NPT Male	1/4" NPT	750

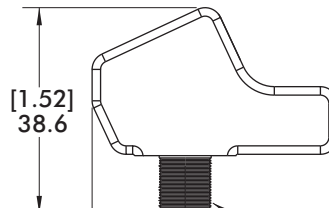
- MicroTool sized venturi.
- 1/8 NPT/1/8 G Ports.

- Small and lightweight.
- Convenient mounts for most small vacuum cups.



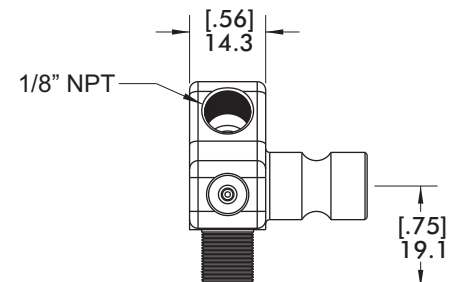
[1.52]
38.6

FEMALE –
PORT "A"



[1.52]
38.6

— MALE
PORT "A"



1/8" NPT

INTERNAL
THREAD

**WEIGHT**

57g [2 oz.]



500 SERIES VENTURI MICROTOOL - CPI-VSA-500-"A"

DESCRIPTION		Port "A"
	Female 1/8" NPT to Female 1/8" NPT	F18
	Female 1/8" NPT to Male 1/8" NPT	M18

Venturi Style Vacuum Generator Cup Mounts

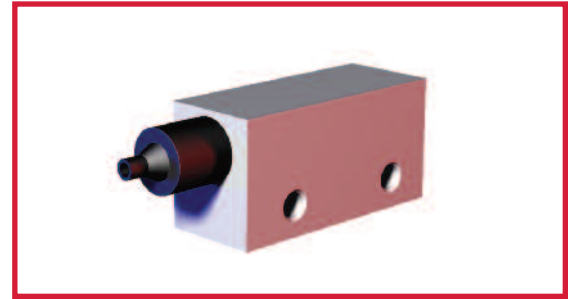
6/8/312 Series Block Style Venturi with Remote Mounting

Features:

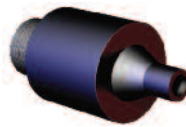
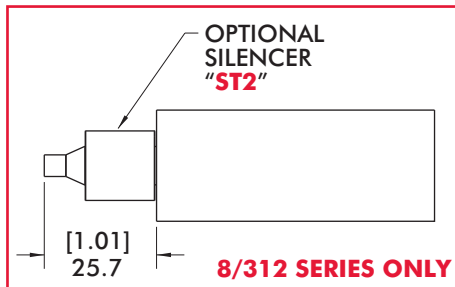
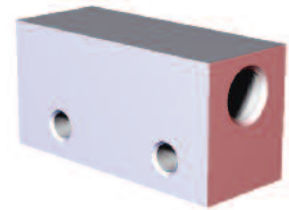
- Block style venturi for remote vacuum applications.
- Tapped holes for bracket mounting.
- Imperial or Metric ports.

Benefits:

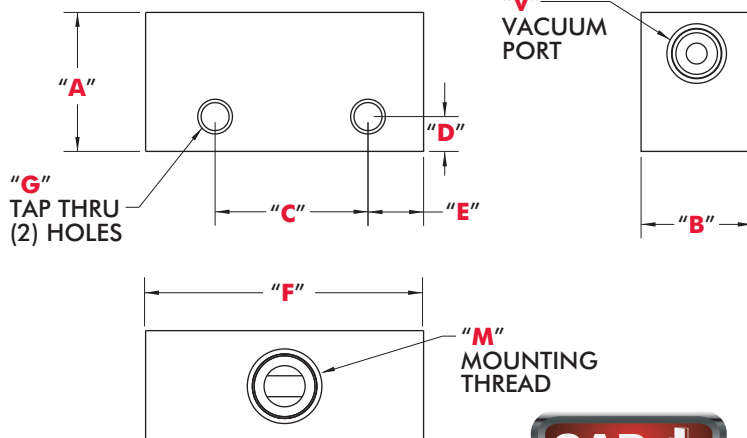
- Simple valving and plumbing.
- Remote mount vacuum source.
- Quiet operation.



BLOCK STYLE VENTURI								
MODEL	"A"	"B"	"C"	"D"	"E"	"F"	"G"	WEIGHT
6 Series	25.4 [1.00]	15.9 [.63]	31.8 [1.25]	6.4 [.25]	6.4 [.25]	44.5 [1.75]	M6 X 1.0	48g [1.7 oz]
8/312 Series	31.8 [1.25]	25.4 [1.0]	34.9 [1.38]	12.7 [.50]	8.0 [.31]	63.5 [2.50]	M8 X 1.25	170g [6 oz]



For Silencer Option;
add "ST2" to the end
of order code (as shown).
CPI-VSA-(X)-ST2



6 SERIES

8/312 SERIES



6/8/312 SERIES BLOCK STYLE VENTURI - CPI-VSA-(X)			
Version	Mount Thread "M"	Vacuum Port "V"	(X)
Imperial	1/8" NPT Female	1/8" NPT	6
Metric	3/8" G Female	1/4" G	8
Imperial	3/8" NPT Female	1/4" NPT	312

Venturi Style Vacuum Generator Cup Mounts

8/312 Series Block Style Venturi with Remote Mounting and Blow Off

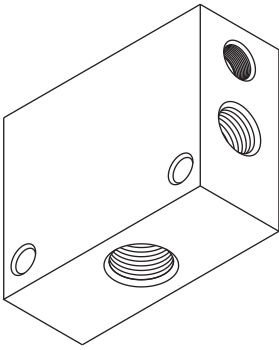
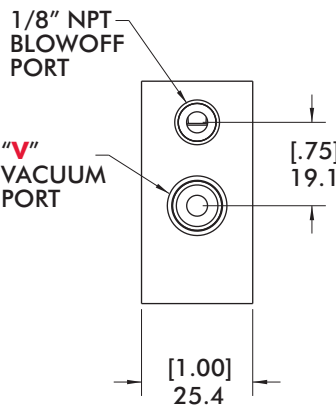
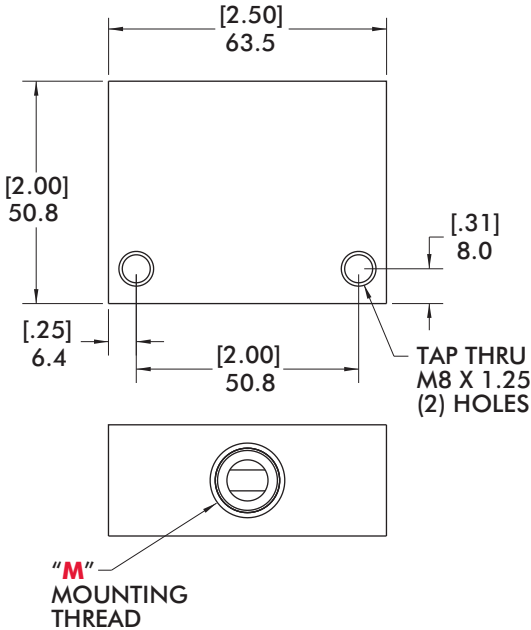


Features:

- Block style venturi for remote vacuum applications.
- Integrated blow off.

Benefits:

- Remote mount vacuum source.
- Quick panel release.
- Quiet operation.



312/8 SERIES BLOCK STYLE VENTURI WITH BLOW OFF - CPI-VSA-(X)-BO			
Version	Mount Thread "M"	Vacuum Port "V"	(X)
Metric	3/8" G Female	1/4" G	8
Imperial	3/8" NPT Female	1/4" NPT	312

Port Only Adaptor Cup Mounts

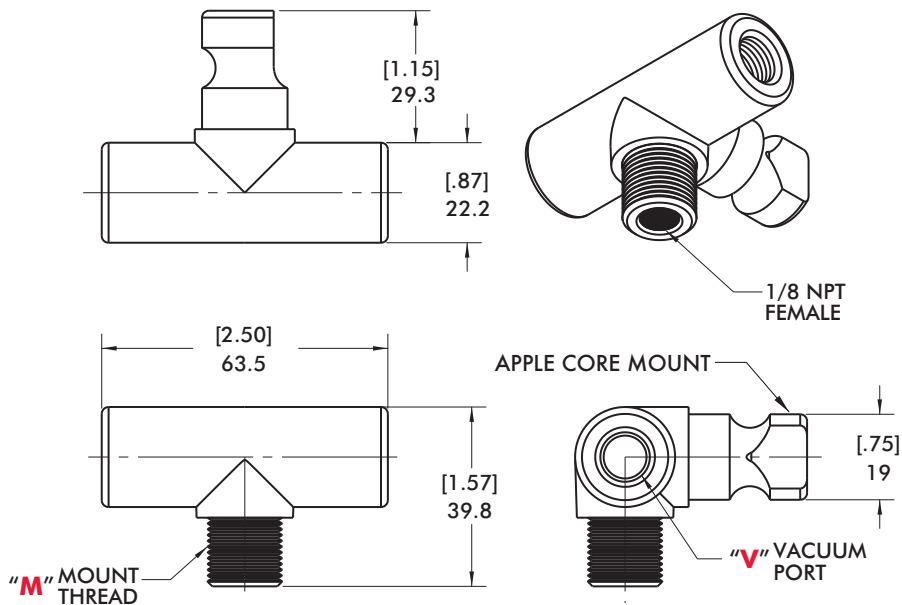
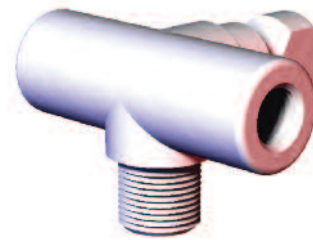
750/19 Series Apple Core Port Adaptor

Features:

- Cup mount for remote vacuum source.
- Imperial or Metric ports.

Benefits:

- Mounts cup to swivel arm for easy adjustment.

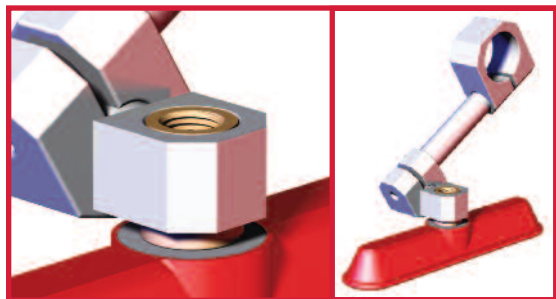


WEIGHT
85g [3 oz.]

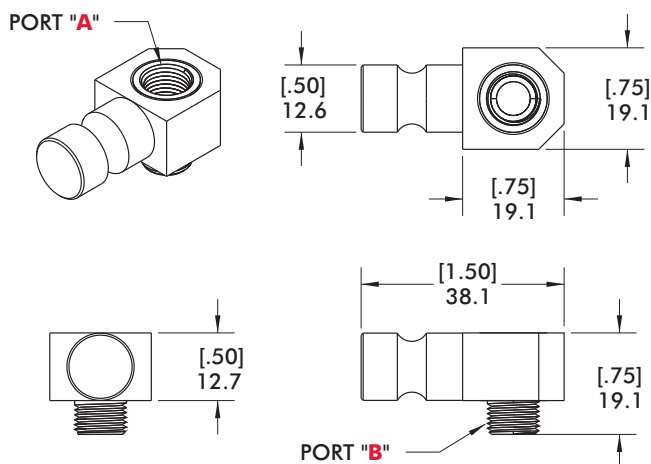
PORT ONLY ADAPTOR - CPI-PA-(X)			
Version	Mount Thread "M"	Vacuum Port "V"	(X)
Metric	3/8" G Male	1/4" G	19
Imperial	3/8" NPT Male	1/4" NPT	750

Port Only Adaptor Cup Mounts

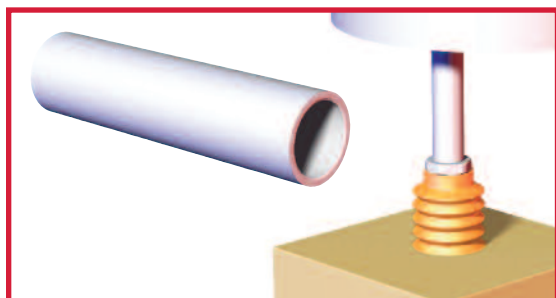
500 Series MicroTool Apple Core Port Adaptor



WEIGHT
23 g [0.8 oz.]



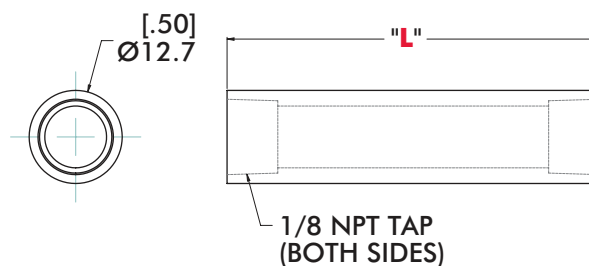
MICROTOOL PORT ONLY ADAPTOR - CPI-PA-500-"A"-"B"			
	Description	Port "A"	Port "B"
	Female 1/8" NPT to Female 1/8" NPT	F18	F18
	Female 1/8" G to Female 1/8" G	FG18	FG18
	Female M5 to Female M5	FM5	FM5
	Female 1/8" NPT to Male 1/8" NPT	F18	M18
	Female 1/8" G to Male 1/8" G	FG18	MG18
	Female M5 to Male M5	FM5	MM5



MODEL NUMBER	WEIGHT
CPI-PAT-50T-"L"-U18	[0.13 lb/ft] 193.0 g/m

"L"
Standard Lengths
02 = 2.00"
03 = 3.00"
04 = 4.00"
05 = 5.00"
06 = 6.00"

1/8 NPT Vacuum Extension



Venturi Style Vacuum Generator Cup Mounts

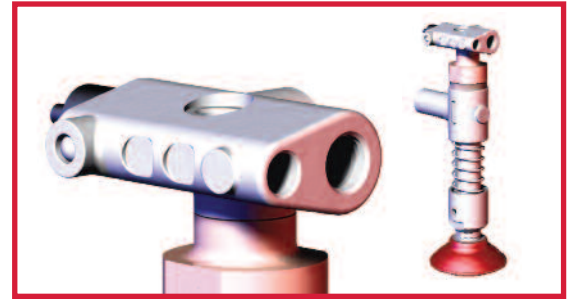
Low-Profile 000 Series with Blow-Off for Mounting to Spring-Loaded Products

Features:

- Low profile construction.
- Integrated blow-off.
- Optional vacuum sensing port.
- Optional exhaust silencer.
- Imperial or Metric ports.

Benefits:

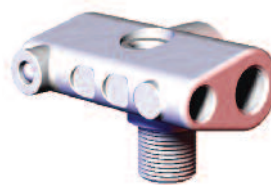
- Lower tool profile to fit in smaller spaces.
- Quick release of panels.
- Vacuum level or part present sensing.
- Quiet operation.



Low-Profile 000 w/Blow Off No Options
CPI-VSA-000-BO-LP-(X)*



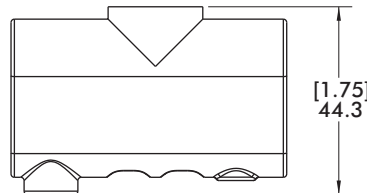
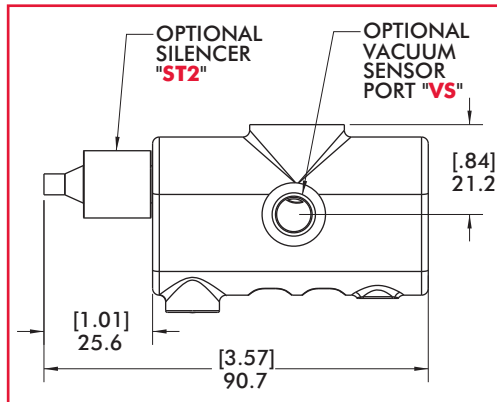
Low-Profile 000 with Blow Off with Detector Option
CPI-VSA-000-BO-LP-(X)*-DET



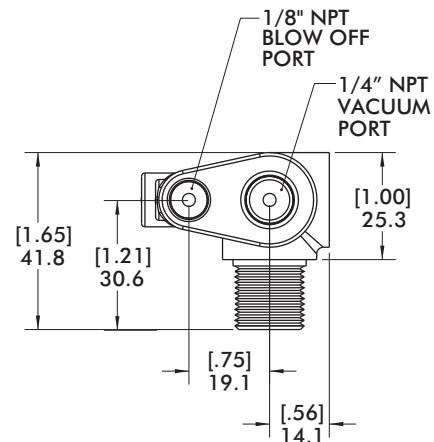
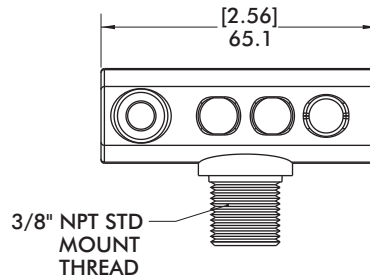
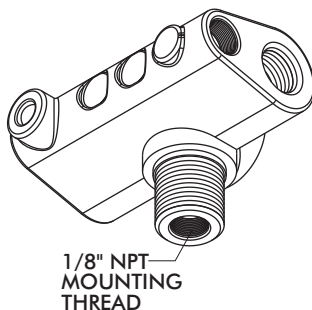
Low-Profile 000 with Blow Off with "VS" Option
CPI-VSA-000-BO-LP-(X)*-VS



To add Silencer Option add "ST2" to the end.
CPI-VSA-000-BO-LP-VS-ST2



DET/VS THREAD
DET = M5
VS = 1/8 NPT
WEIGHT
142g [5 oz.]

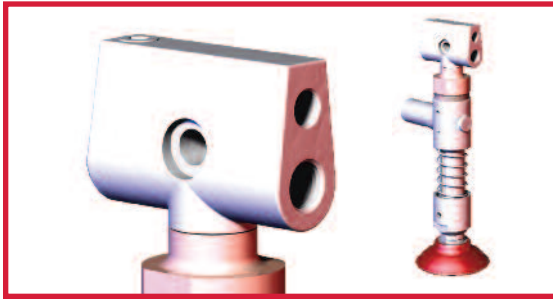


(X)=Optional Mounting Thread
*disregard when using standard
3/8" NPT mounting.

G38 = 3/8" G Metric
U14 = 1/4" NPT Imperial
G14 = 1/4" G Metric

Venturi Style Vacuum Generator Cup Mounts

000 Series with Blow-Off for Mounting to Spring-Loaded Products



Features:

- Standard venturi/blow-off.
- Optional vacuum sensing port.

Benefits:

- Vacuum level or part present sensing.
- Quiet operation.



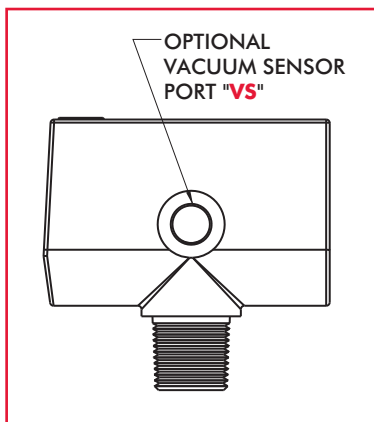
Low-Profile 000 w/Blow Off No Options
CPI-VSA-000-BO-(X)*



Low-Profile 000 with Blow Off with Detector Option
CPI-VSA-000-BO-(X)*-DET



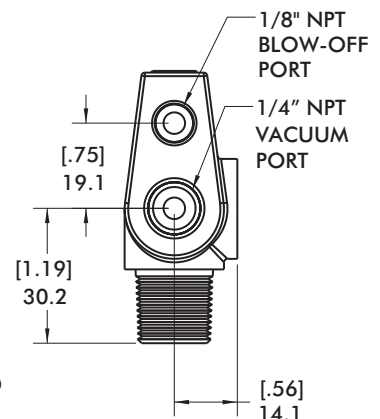
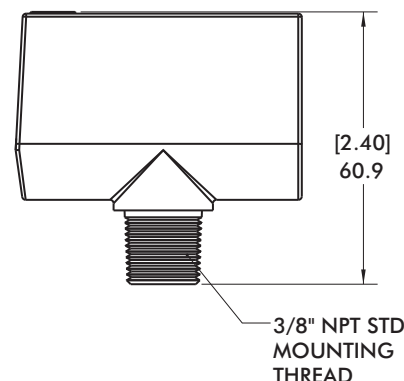
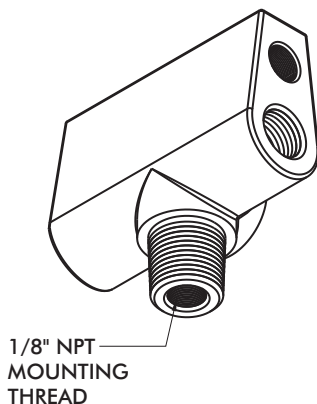
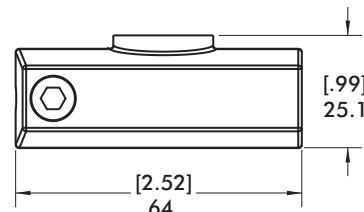
Low-Profile 000 with Blow Off with "VS" Option
CPI-VSA-000-BO-(X)*-VS



DET/VS THREAD
DET = M5
VS = 1/8 NPT
WEIGHT
142g [5 oz.]



(X)=Optional Mounting Thread
*Disregard when using standard 3/8" NPT mounting.
G38 = 3/8" G Metric
U14 = 1/4" NPT Imperial
G14 = 1/4" G Metric



Vacuum Switch

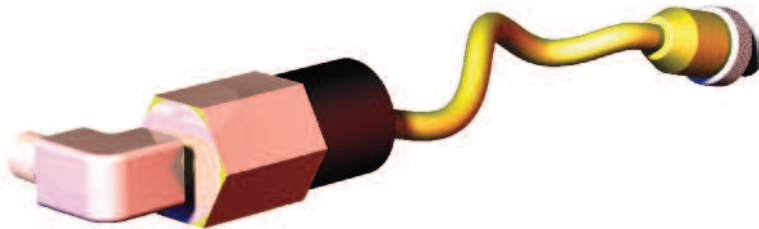
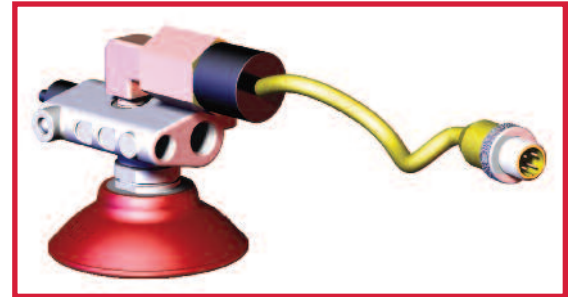
Micro Connector Vacuum Switch

Features:

- Provides a cost-effective alternative to 24VDC proximity switch.
- SPDT switch allows part/no part status.
- Non-adjustable switch set point eliminates false signals.

Specifications:

Switch Set Point:
18 in/HG, Non-Adjustable
Electrical Specifications:
3 amps, 250 volts DC
4 Pin Micro Euro
Connector
Weight: 198g [7 oz.]



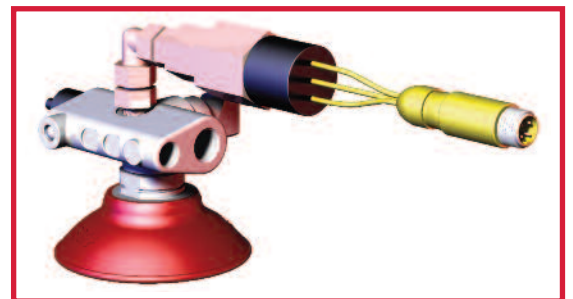
4-Pin Euro Micro Connector
Vacuum Switch
CPI-VS-VM-2C-18



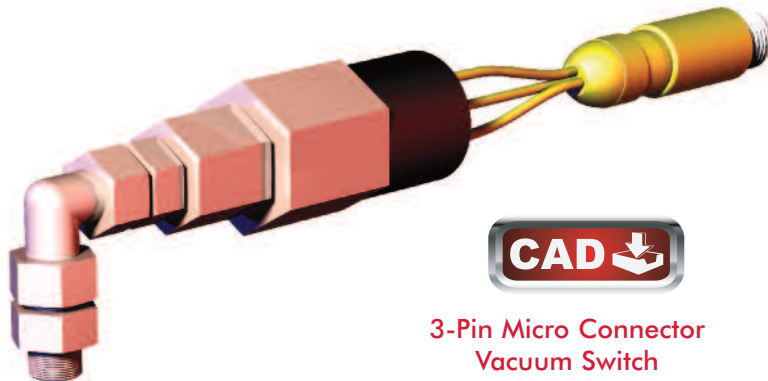
- 1) COMMON
- 2) NORMALLY CLOSED
- 3) NOT USED
- 4) NORMALLY OPEN

Specifications:

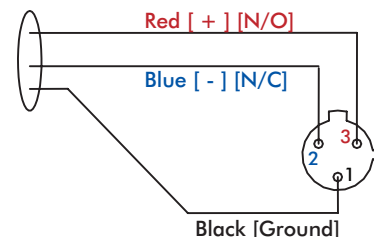
Switch Set Point:
18 in/HG, Non-Adjustable
Electrical Specifications:
3 amps, 250 volts DC
3 Pin Micro Connector
Weight: 198g [7 oz.]



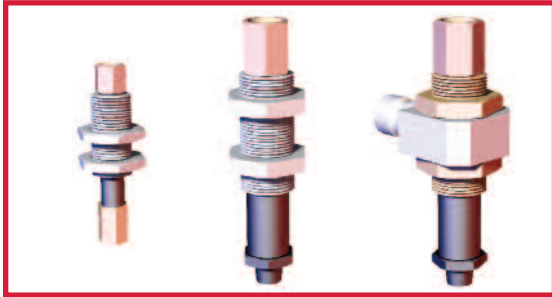
To order with Low-Profile Venturi Vacuum Cup
Mount with Blow-Off, Vacuum Switch and
Silencer options as shown above.
CPI-VSA-750-BO-LP-VSS-ST2



3-Pin Micro Connector
Vacuum Switch
CPI-VS-VM17-3MC-G18B

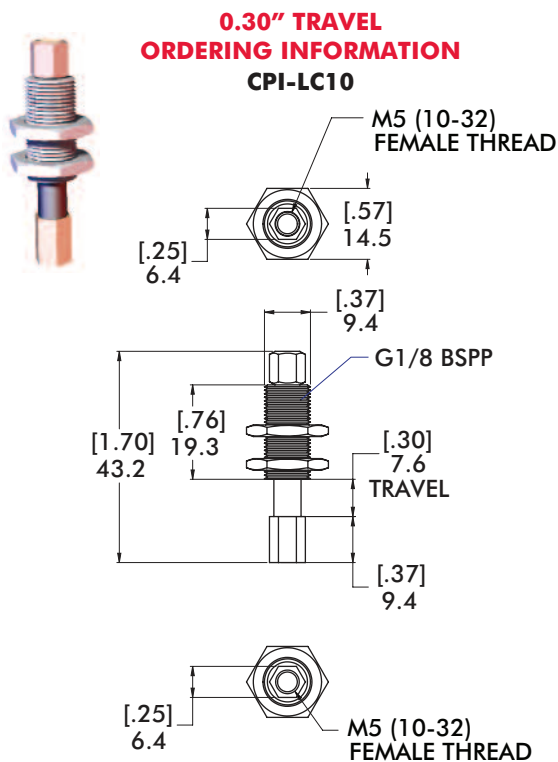


Spring-Loaded Cup Mounts Bulk Head Style Micro Series Level Compensators



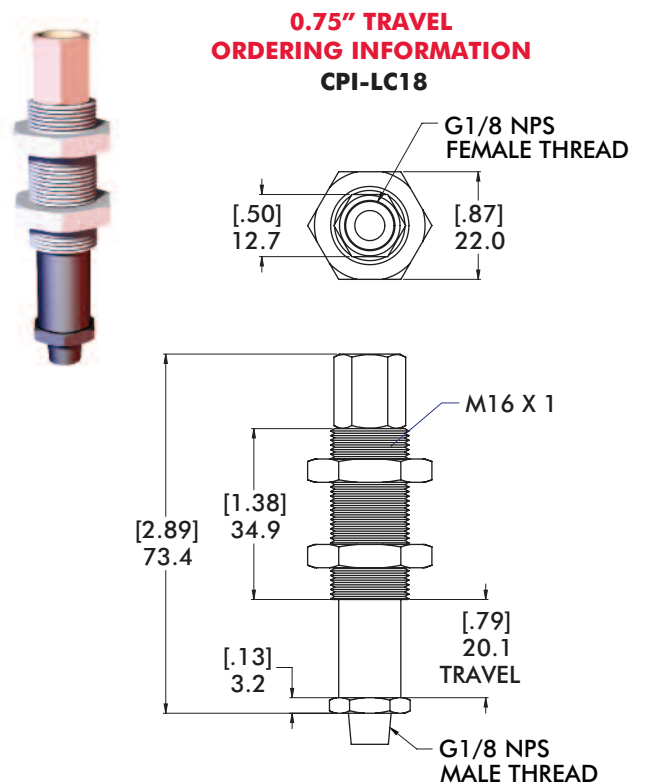
Specifications:
Material: Aluminum

Features:
• M5 or G mounting threads and vacuum ports.



WEIGHT

5.7 g [0.2 oz.]



WEIGHT

28.3 g [1.0 oz.]

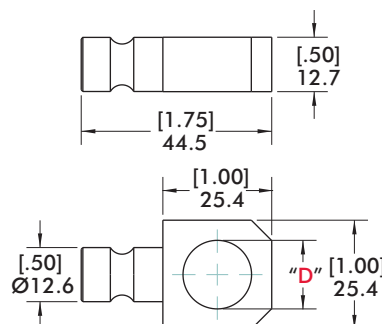
LCM Series Mount



CPI-LCM-10-"D"

WEIGHT

23 g [0.8 oz.]



"D" = (Ø) Diameter
16 = Ø16mm [.63"]
10 = Ø10mm [.39"]

Spring-Loaded Cup Mounts

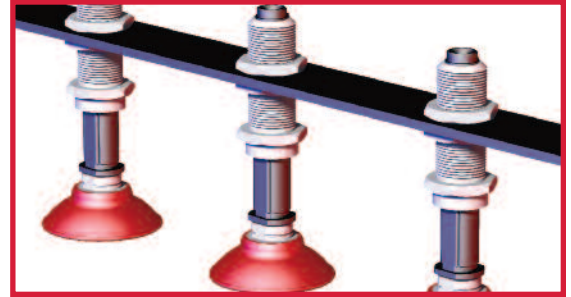
Bulkhead Style Standard Travel Spring-Loaded Cup Mount

Features:

- Available in three different travel lengths.
- NPT or G mounting threads and vacuum ports.

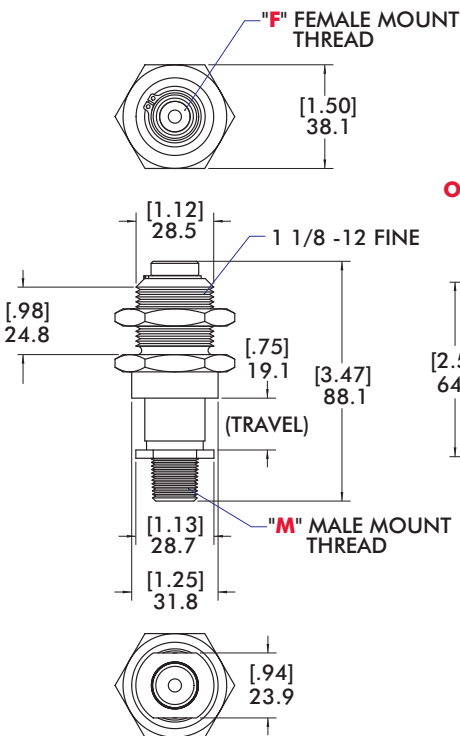
Specifications:

Material: Aluminum



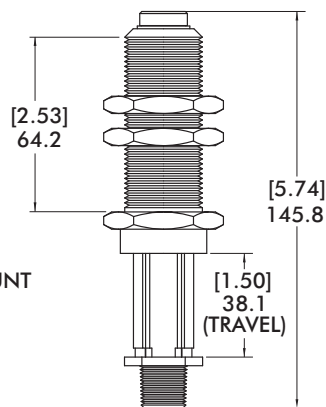
0.75" TRAVEL ORDERING INFORMATION

CPI-RCM-30



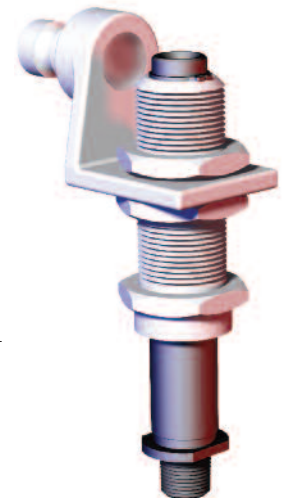
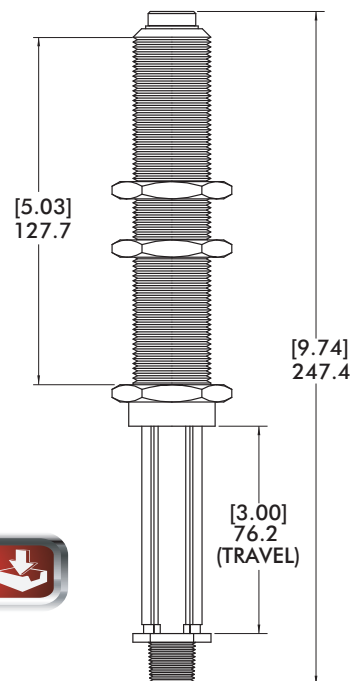
1.50" TRAVEL ORDERING INFORMATION

CPI-RCM-150-U14-NR



3.00" TRAVEL ORDERING INFORMATION

CPI-RCM-300-U14-NR



CPI-RCM-150-U14-NR
Shown with CPI-SAP-30

BULKHEAD MOUNT - CPI-RCM-XXX

VERSION	Mount Thread "M"	Vacuum Port "F"
Imperial	3/8" NPT Female	1/4" NPT

WEIGHT

.75" Travel = 142g [5 oz]
1.50" Travel = 227g [8 oz]
3.00" Travel = 340g [12 oz]

Additional smaller sized spring-loaded cup Mount available upon request.
Please contact DE-STA-CO Customer Service for more information.

Spring-Loaded Cup Mounts

Apple-Core Style Standard Travel Spring-Loaded Cup Mount

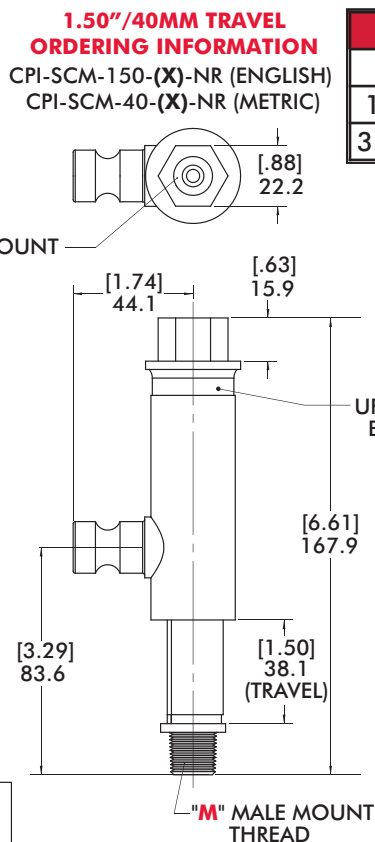
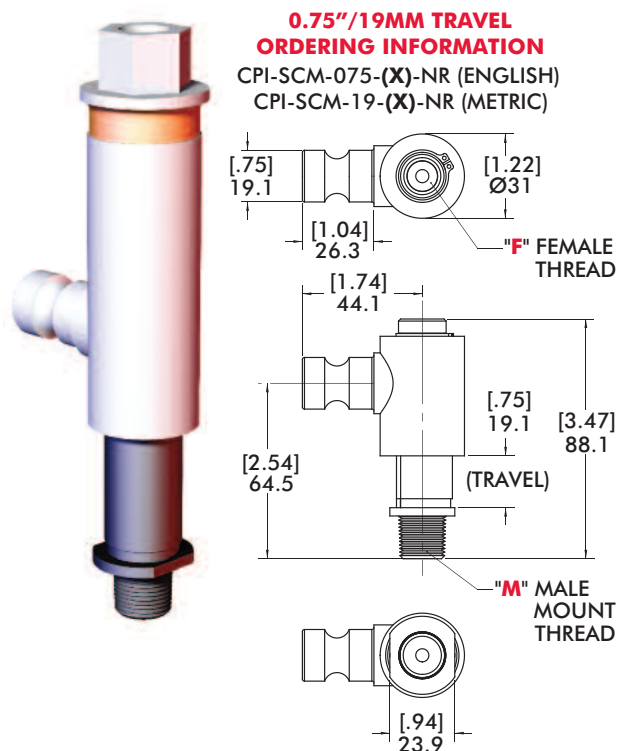


Specifications:

Material: Aluminum
Urethane Bumper
 used on 1.50"/40mm and
 3.00"/75mm travel.

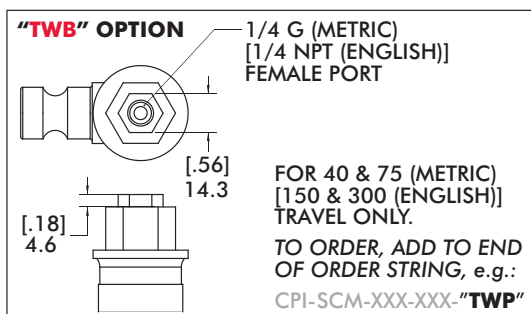
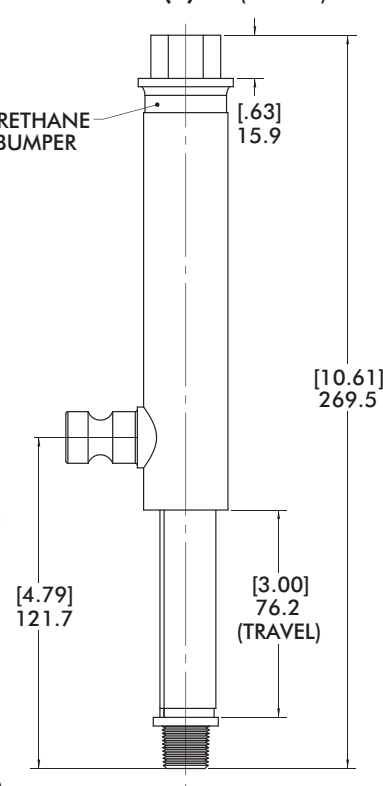
Features:

- Available in three different travel lengths.
- Apple core .75" [19mm] mounting for adjustment along on axis.
- NPT or G mounting threads and vacuum ports.



WEIGHT	
.75"/19mm Travel	= 142g [5 oz]
1.50"/40mm Travel	= 227g [8 oz]
3.00"/75mm Travel	= 340g [12 oz]

3.00"/75MM TRAVEL
ORDERING INFORMATION
 CPI-SCM-300-(X)-NR (ENGLISH)
 CPI-SCM-75-(X)-NR (METRIC)



(NR = NON ROTATING)

CPI-SCM-(19/075)-(X)-NR			
VERSION	"M"	"F"	(X)
Metric	3/8" G	1/4" G	G14
Imperial	3/8" NPT	1/4" NPT	U14

CPI-SCM-(40/150 & 75/300)-(X)-NR			
VERSION	"M"	"F"	(X)
Metric	3/8" G	3/8" G	G14
Imperial	3/8" NPT	3/8" NPT	U14

Spring-Loaded Cup Mounts

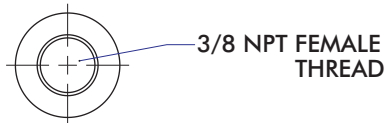
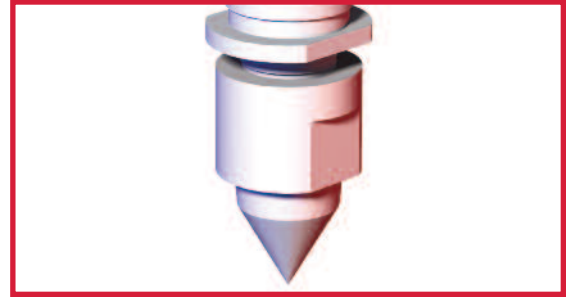
Locating Pins for Standard Travel Spring-Loaded Cup Mount

Features:

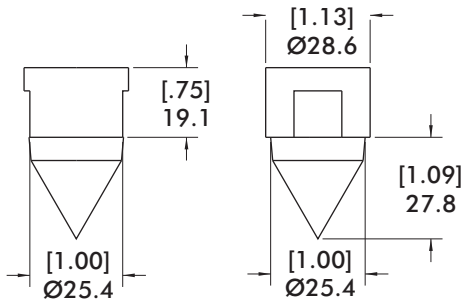
- Available in four diameters and pin heights.
- Mounts to standard spring cup mounts.

Specifications:

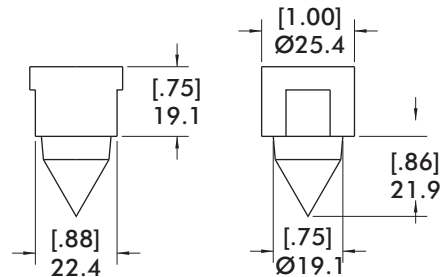
Material: Hardened Steel



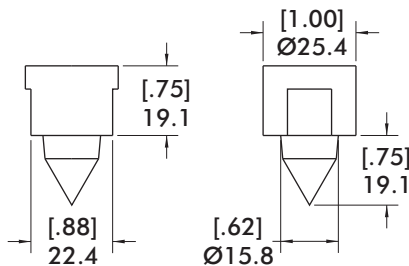
Ø1.00" LOCATING PIN CPI-ULP-100-125



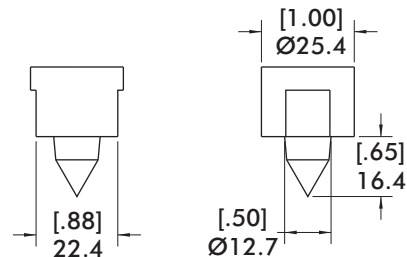
Ø.75" LOCATING PIN CPI-ULP-75-112



Ø.62" LOCATING PIN CPI-ULP-62-100

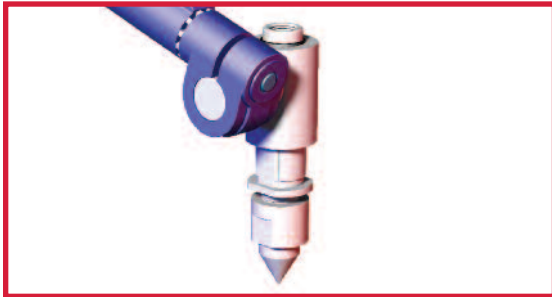


Ø.50" LOCATING PIN CPI-ULP-50-75



Spring-Loaded Cup Mounts

Spring Loaded Locating Pins Travel and Ordering Information



Specifications:

Material:
Hardened Steel (Pins)

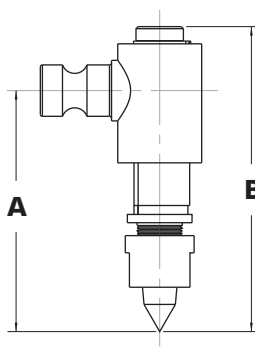
Features:

- Locating pins mounted to Standard Spring-Loaded Cup Mounts with 0.75" and 3.00" Travel.



STANDARD APPLE CORE SPRING CUP MOUNT 0.75" TRAVEL WITH:

Ø1.00" LOCATING PIN
CPI-SCM-075-100-LP
Ø.75" LOCATING PIN
CPI-SCM-075-75-LP
Ø.62" LOCATING PIN
CPI-SCM-075-62-LP
Ø.50" LOCATING PIN
CPI-SCM-075-50-LP



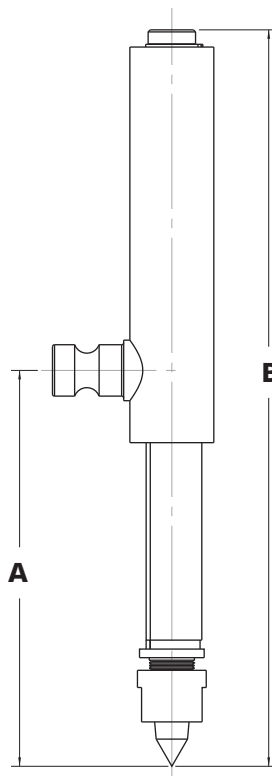
0.75" TRAVEL LOCATING PINS

MODEL	"A"	"B"
CPI-SCM-075-100-LP	89 [3.50]	112.6 [4.43]
CPI-SCM-075-75-LP	91.6 [3.61]	115.3 [4.54]
CPI-SCM-075-62-LP	94.5 [3.72]	118.1 [4.65]
CPI-SCM-075-50-LP	100.4 [3.95]	124.0 [4.88]



STANDARD APPLE CORE SPRING CUP MOUNT 3.00" TRAVEL WITH:

Ø1.00" LOCATING PIN
CPI-SCM-300-100-LP
Ø.75" LOCATING PIN
CPI-SCM-300-75-LP
Ø.62" LOCATING PIN
CPI-SCM-300-62-LP
Ø.50" LOCATING PIN
CPI-SCM-300-50-LP



3.00" TRAVEL LOCATING PINS

MODEL	"A"	"B"
CPI-SCM-300-100-LP	157.5 [6.20]	283.3 [11.15]
CPI-SCM-300-75-LP	151.7 [5.97]	277.4 [10.92]
CPI-SCM-300-62-LP	148.8 [5.86]	274.5 [10.81]
CPI-SCM-300-50-LP	146.1 [5.75]	271.9 [10.70]

Spring-Loaded Cup Mounts

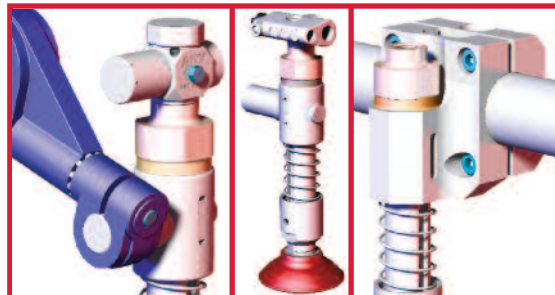
Extended Travel Spring-Loaded Cup Mounts - Features, Benefits and Options

Features:

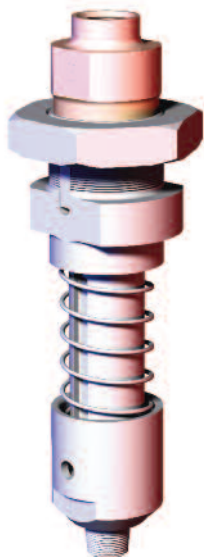
- Four mounting options.
- Three travel lengths.
- NPT or G mounting threads and vacuum ports.
- Urethane shock absorber.
- Teflon coated shaft.
- Fully modular construction.

Benefits:

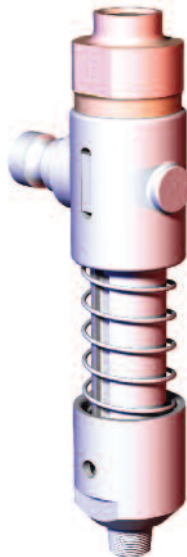
- Urethane shock absorber reduces "pick-up" shock.
- Extensive use of polymers reduce weight and cost.
- Extended travel cup mounts can be reconfigured or rebuilt.
- Smooth operation, reduced wear.



Ø1.25" Bulkhead Mount
CPI-SCM(B)-"T"



Ø0.75" Apple Core Mount
CPI-SCM(A)-"T"

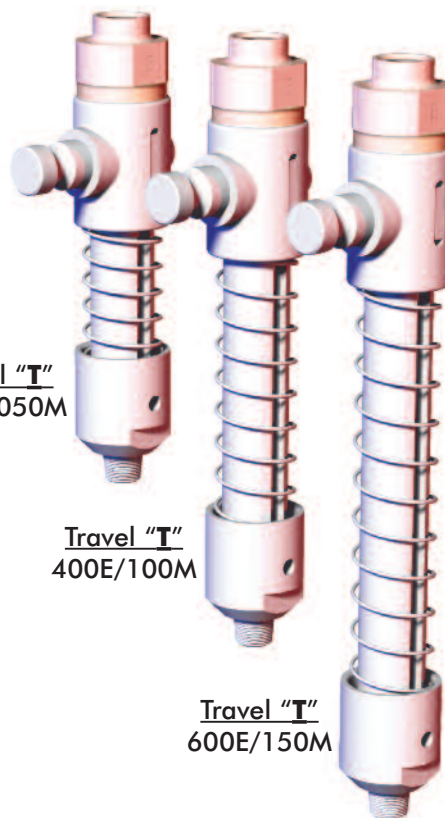


Travel Length for SCM(A,B,C,10/25)
CPI-SCM(X)-"T"

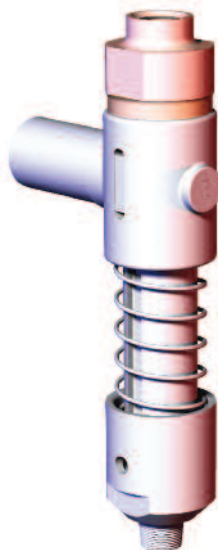
Travel "T"
200E/050M

Travel "T"
400E/100M

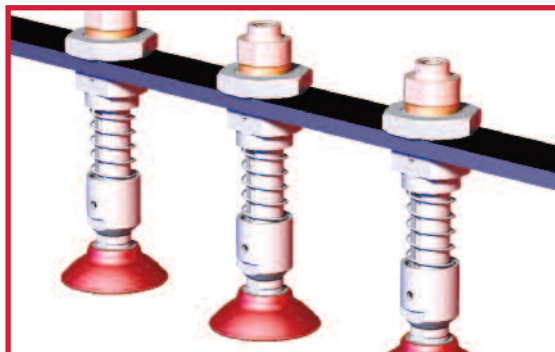
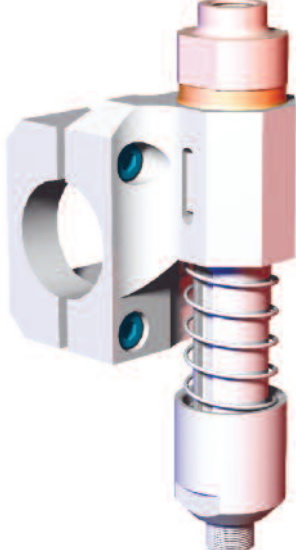
Travel "T"
600E/150M



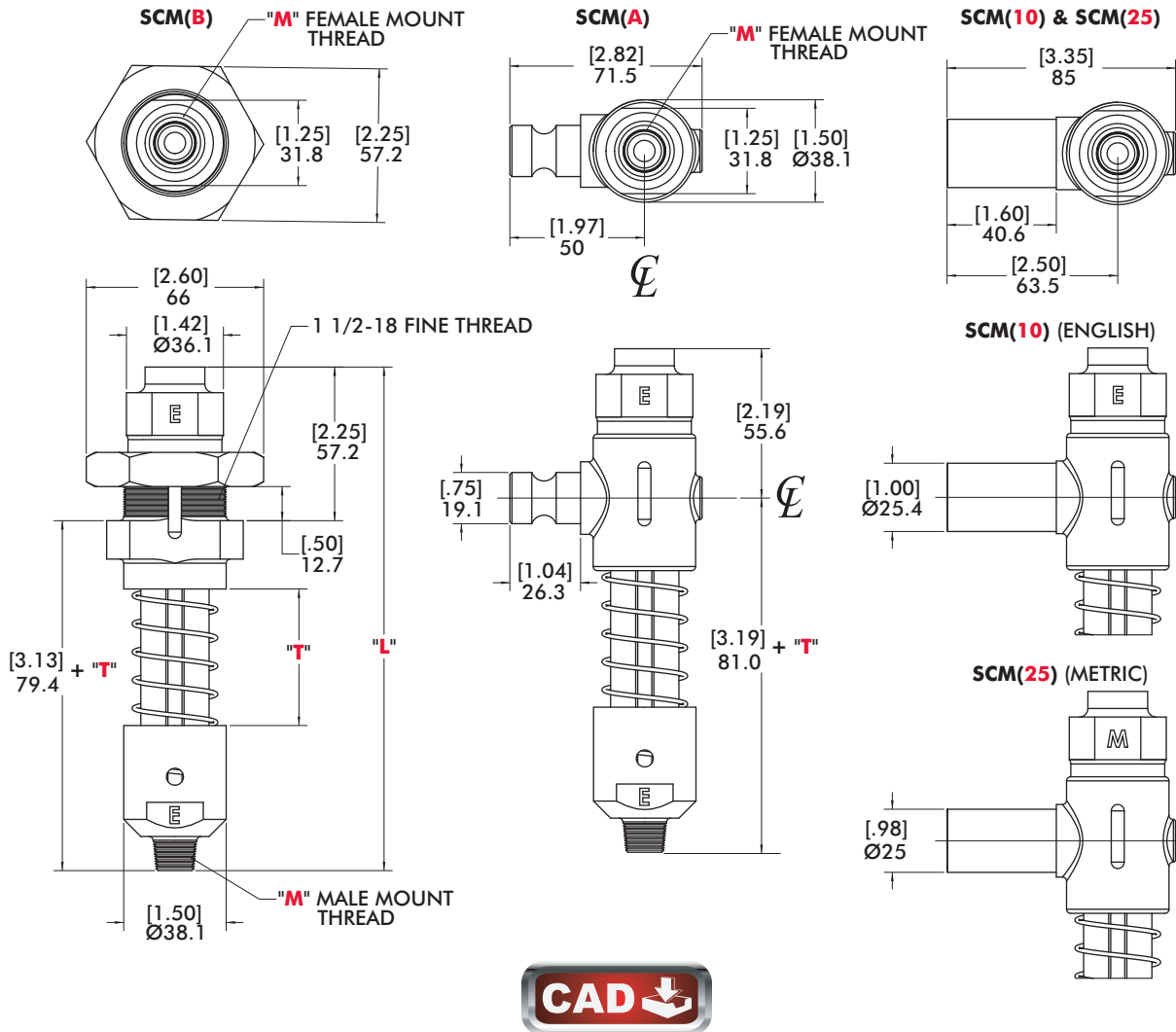
Ø1.00"/25MM
Extension Mount
CPI-SCM(10/25)-"T"



Ø1.50"/40MM
Tube Mount
CPI-SCM(C)-"D"- "T"- "O"



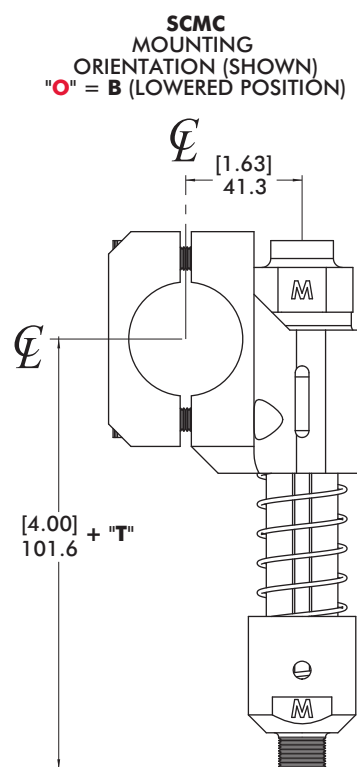
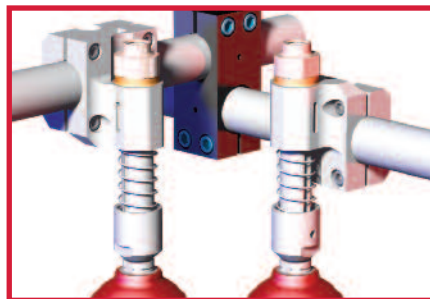
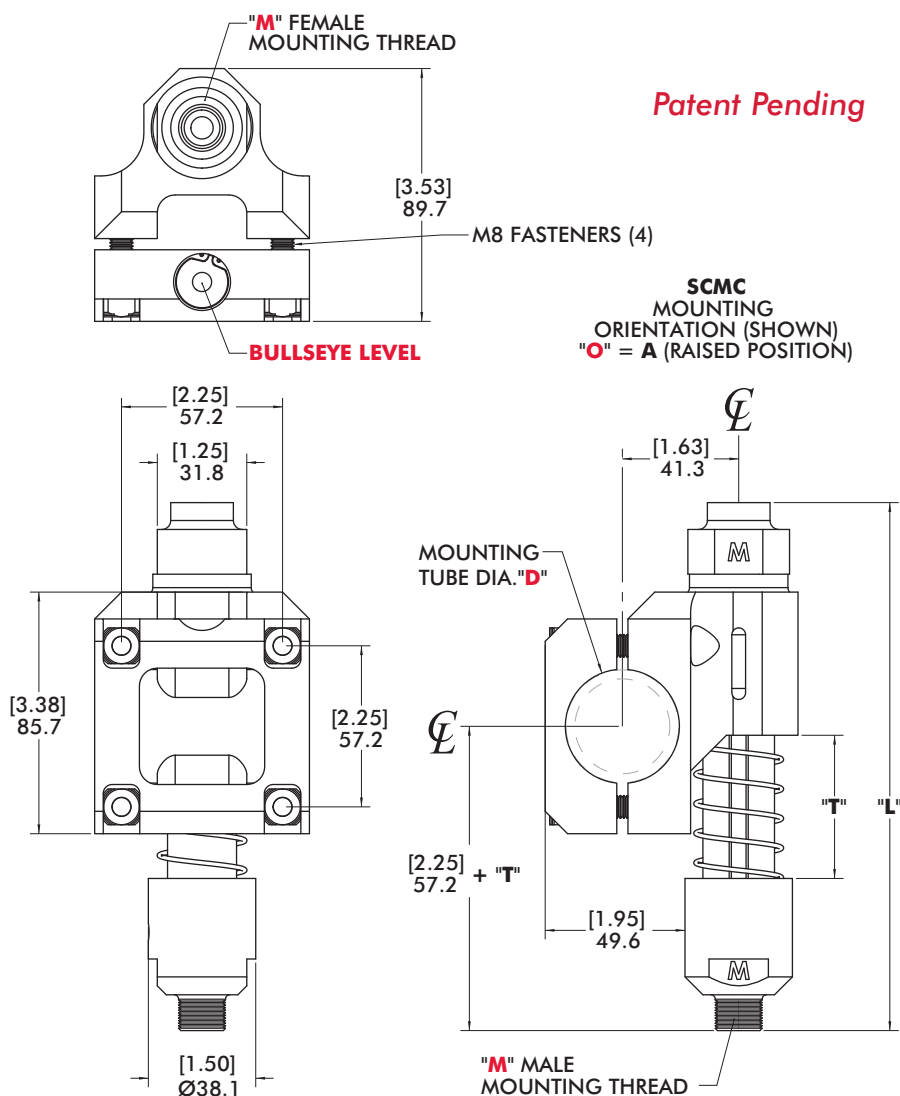
Spring-Loaded Cup Mounts Extended Travel Spring-Loaded Cup Mounts



EXTENDED TRAVEL SPRING-LOADED CUP MOUNTS - CPI-SCM(X)-"T"				
VERSION	TRAVEL "T"	"L"	"M"	WEIGHT
 IMPERIAL	200E (2.00" Vertical Travel)	187.3 [7.38]	3/8" NPT	.48kg [1.06 lb]
	400E (4.00" Vertical Travel)	238.2 [9.38]	3/8" NPT	.53kg [1.16 lb]
	600E (6.00" Vertical Travel)	288.9 [11.38]	3/8" NPT	.58kg [1.27 lb]
 METRIC	050M (50mm Vertical Travel)	187.3 [7.38]	3/8" G	.48kg [1.06 lb]
	100M (100mm Vertical Travel)	238.2 [9.38]	3/8" G	.53kg [1.16 lb]
	150M (150mm Vertical Travel)	288.9 [11.38]	3/8" G	.58kg [1.27 lb]

Spring-Loaded Cup Mounts

Tube Mounted Extended Travel Spring-Loaded Cup Mounts

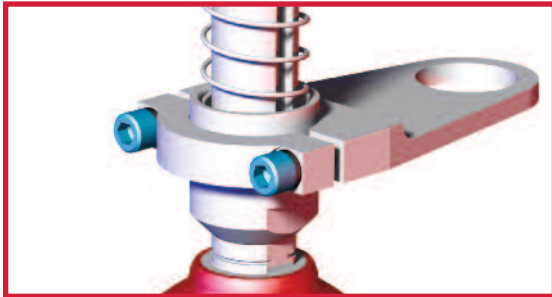


TUBE MOUNTED EXTENDED TRAVEL SPRING-LOADED CUP MOUNTS - CPI-SCMC-"D"- "T"- "O"

VERSION	TRAVEL "T"	"L"	"M"	"D"	WEIGHT
 IMPERIAL	200E (2.00" Vertical Travel)	187.3 [7.38]	3/8" NPT	150 (Ø1.50")	.85kg [1.87 lb]
	400E (4.00" Vertical Travel)	238.2 [9.38]	3/8" NPT	150 (Ø1.50")	.90kg [1.97 lb]
	600E (6.00" Vertical Travel)	288.9 [11.38]	3/8" NPT	150 (Ø1.50")	.94kg [2.08 lb]
 METRIC	050M (50mm Vertical Travel)	187.3 [7.38]	3/8" G	40M (Ø40mm)	.85kg [1.87 lb]
	100M (100mm Vertical Travel)	238.2 [9.38]	3/8" G	40M (Ø40mm)	.90kg [1.97 lb]
	150M (150mm Vertical Travel)	288.9 [11.38]	3/8" G	40M (Ø40mm)	.94kg [2.08 lb]

Spring-Loaded Cup Mounts

Extended Travel Spring-Loaded Cup Mount Proximity Switch Mounts



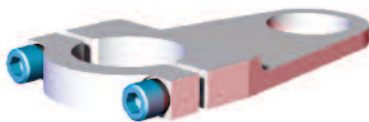
Specifications:

Material: Aluminum

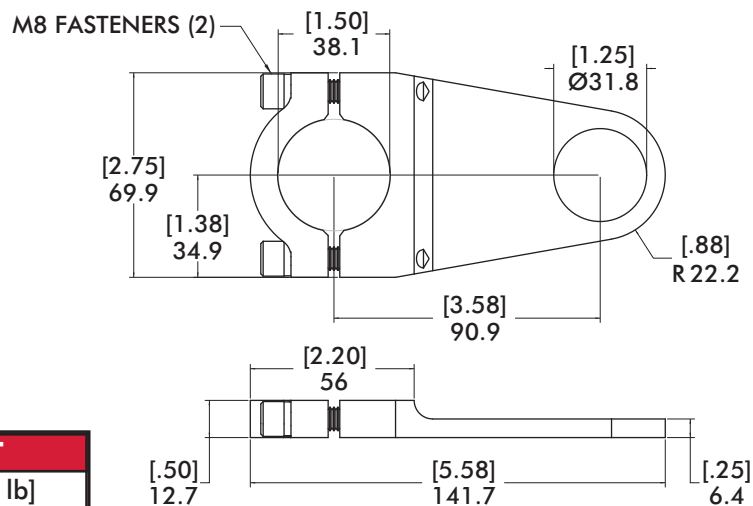
Features:

- Mounts 30mm barrel style and 50mm square style proximity switches to the extended travel spring-loaded cup mounts.

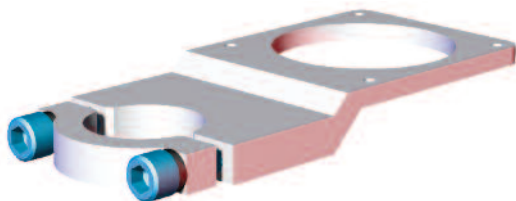
30mm Barrel Style Proximity Mount



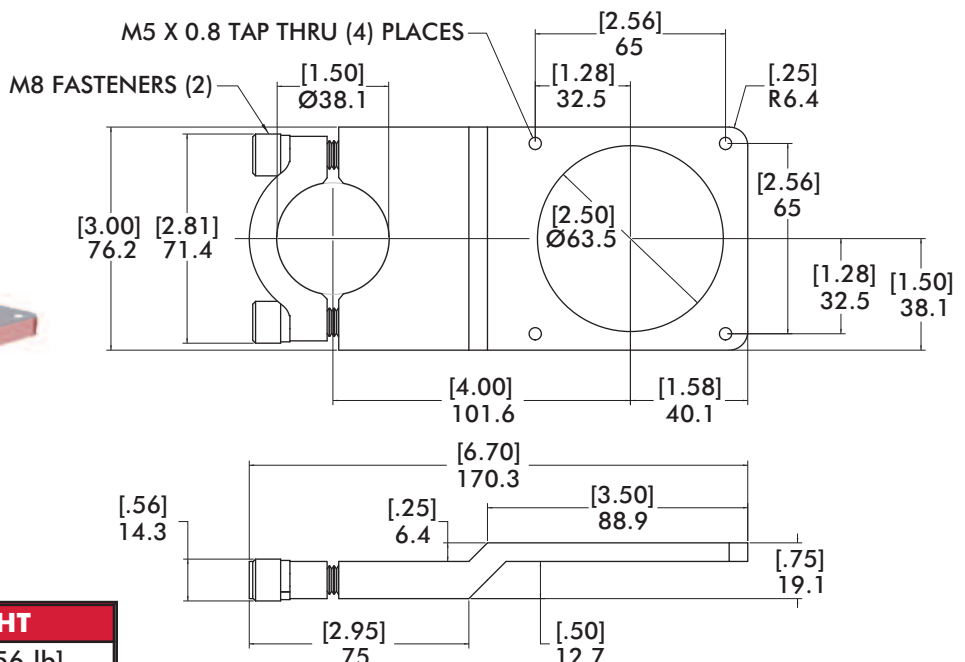
MODEL NUMBER	WEIGHT
CPI-SAP-30-PM-150	.13 kg [.29 lb]



50mm Square Style Proximity Mount



MODEL NUMBER	WEIGHT
CPI-SAP-NI50-PM-150	.23 kg [.56 lb]



Manifolds

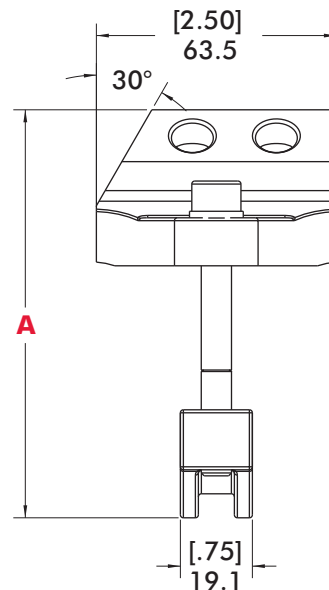
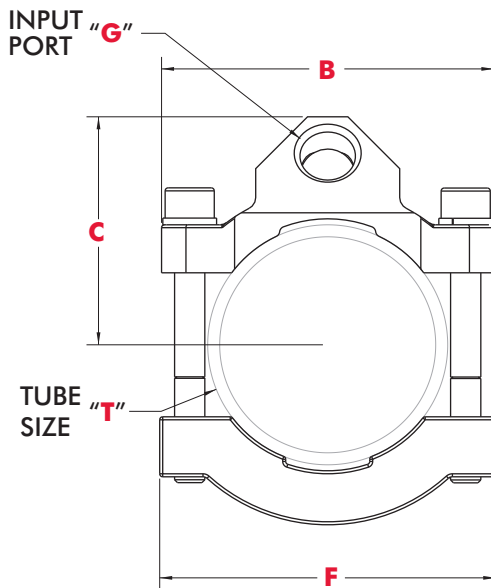
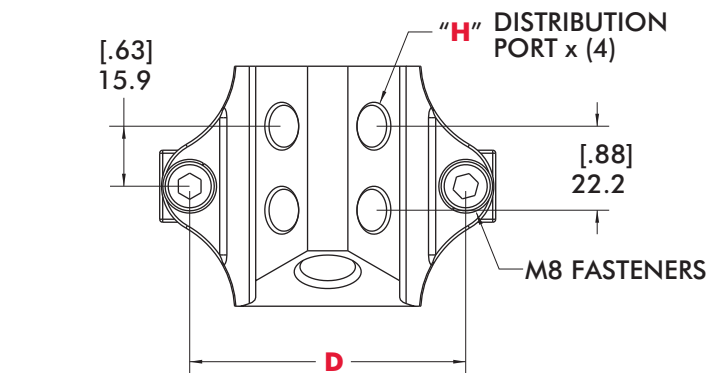
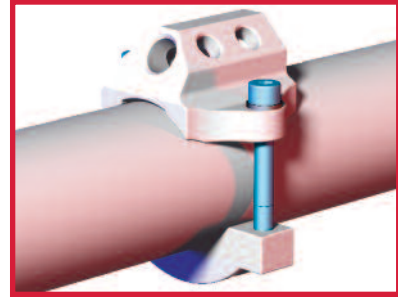
Boom Mounted Single 4-Port Manifold - 30° Angled Input Port

Features:

- 30° Angled input port.
- Provides a 4-port air distribution system mount on the boom.

Specifications:

Material: Aluminum



CPI-MBC



CPI-MLK

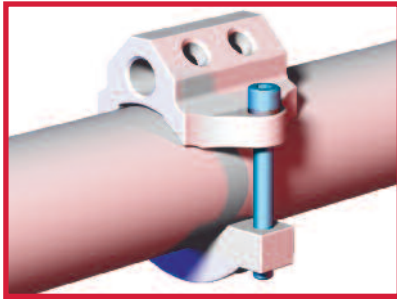


BOOM MOUNTED SINGLE 4-PORT MANIFOLD WITH 30° ANGLED INPUT PORT

MODEL	"A"	"B"	"C"	"D"	"F"	"G"	"H"	"T"	WEIGHT
CPI-MLK-60-G44-30	108.0	87.9	60.3	73	88.9	3/8 G	1/4 G	Ø60MM	340g
[CPI-MBC-250-4-4-30]	[4.25]	[3.46]	[2.38]	[2.88]	[3.50]	[3/8 NPT]	[1/4 NPT]	[Ø2.50"]	[12 oz]

Manifolds

Boom Mounted Single 4-Port Manifold

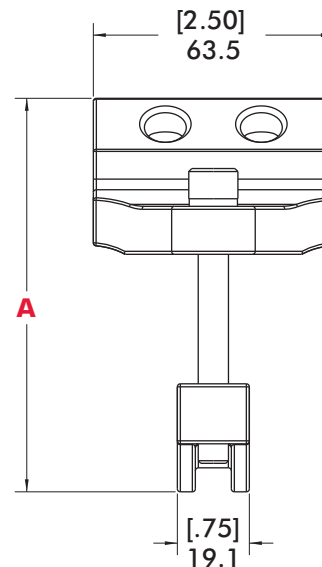
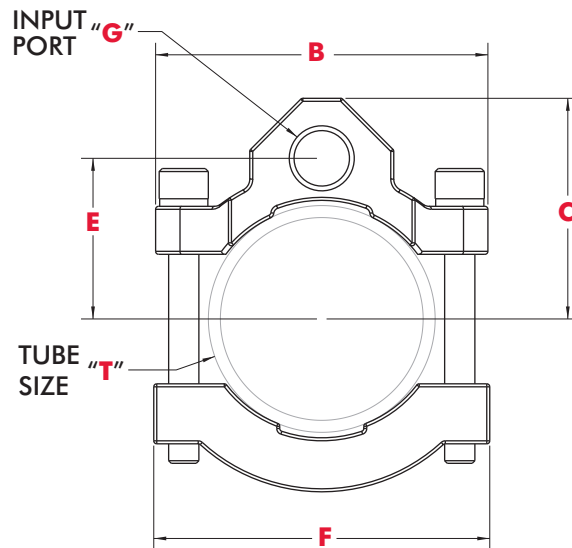
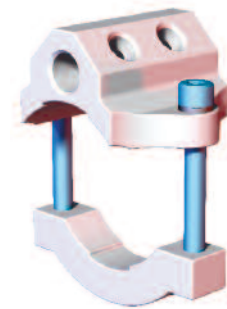
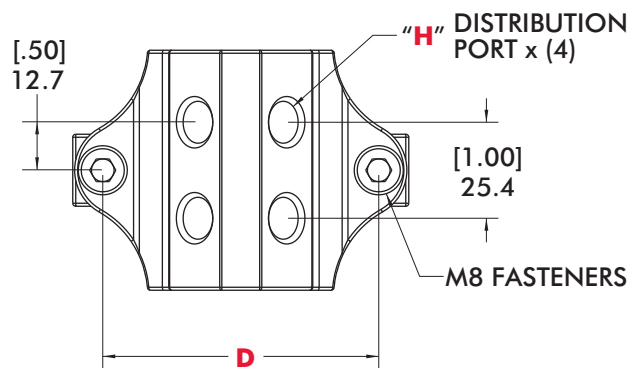


Specifications:

Material: Aluminum

Features:

- Provides a 4-port air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.



BOOM MOUNTED SINGLE 4-PORT MANIFOLD

MODEL	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"T"	WEIGHT
CPI-MLK-40-G44 [CPI-MBC-150-4-4]	88.9 [3.50]	64.3 [2.53]	52.5 [2.07]	48.5 [1.91]	36.7 [1.44]	64.3 [2.53]	12.9 [.51]	114.5 [4.51]	Ø40MM [Ø1.50"]	283g [10 oz]
CPI-MLK-60-G44 [CPI-MBC-250-4-4]	104.1 [4.10]	87.9 [3.46]	58.4 [2.30]	73 [2.88]	42.5 [1.67]	88.9 [3.50]	39.7 [1.56]	118.4 [4.65]	Ø60MM [Ø2.50"]	340g [12 oz]

Manifolds

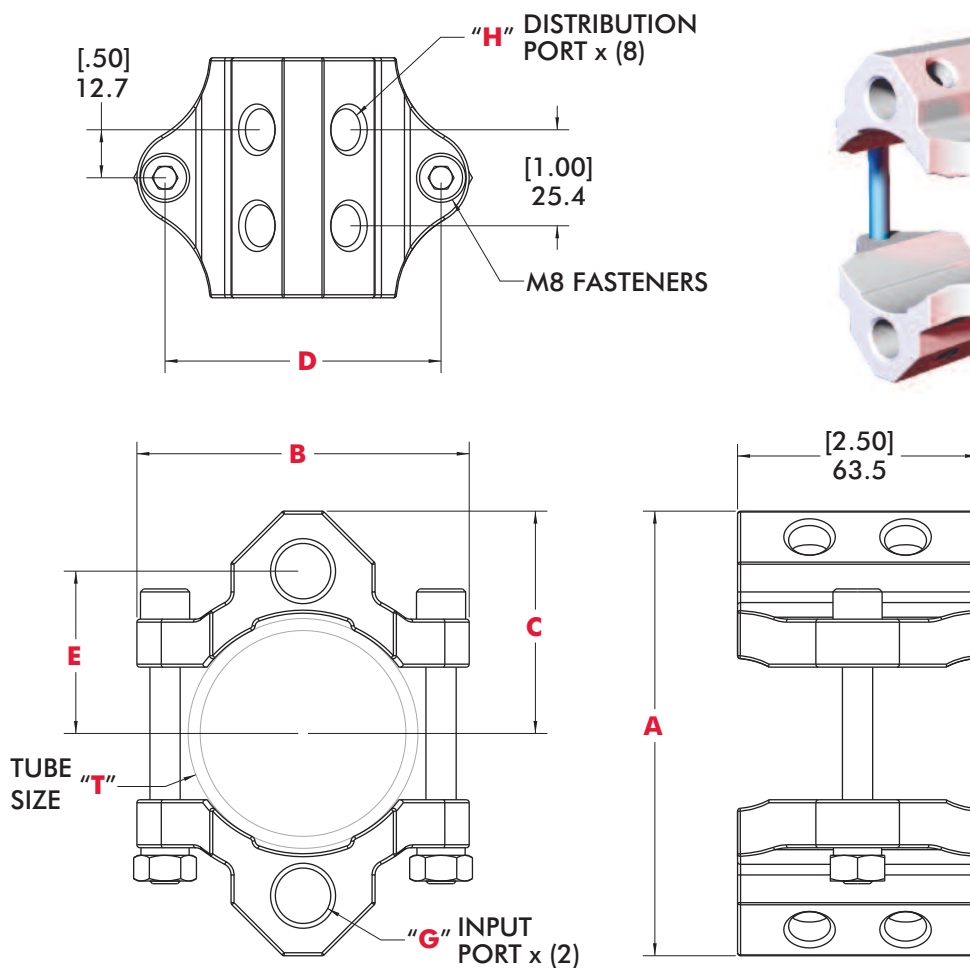
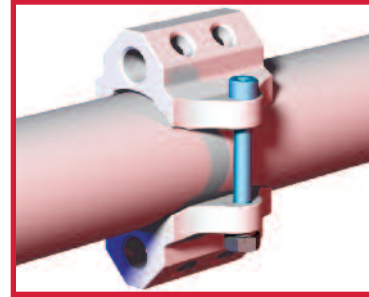
Boom Mounted Double 8-Port Manifold

Features:

- Provides an 8-port (4 ports on top and bottom) air distribution system mount on the boom.
- Available in two sizes to allow clamping to Ø40mm [Ø1.50"] and Ø60mm [Ø2.50"] materials.

Specifications:

Material: Aluminum

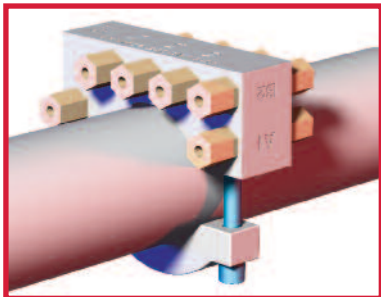


BOOM MOUNTED SINGLE 8-PORT MANIFOLD

MODEL	"A"	"B"	"C"	"D"	"E"	"G"	"H"	"T"	WEIGHT
CPI-MLK-40-G88 [CPI-MBC-150-8-8]	105.1 [4.14]	64.3 [2.53]	52.5 [2.07]	48.5 [1.91]	36.8 [1.45]	3/8 G [3/8 NPT]	1/4 G [1/4 NPT]	Ø40MM [Ø1.50"]	425g [16 oz]
CPI-MLK-60-G88 [CPI-MBC-250-8-8]	117.6 [4.63]	87.9 [3.46]	58.8 [2.32]	73.0 [2.88]	42.9 [1.69]	3/8 G [3/8 NPT]	1/4 G [1/4 NPT]	Ø60MM [Ø2.50"]	510g [18 oz]

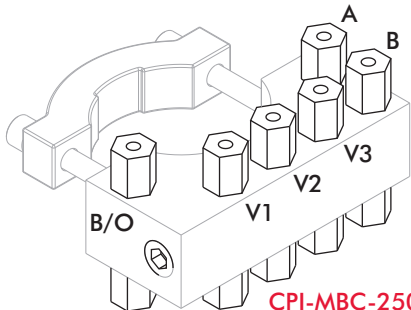
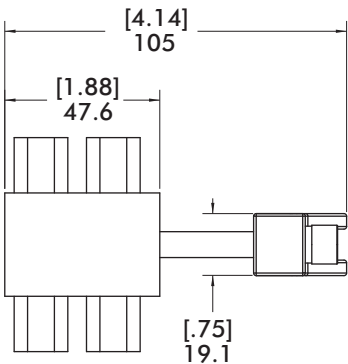
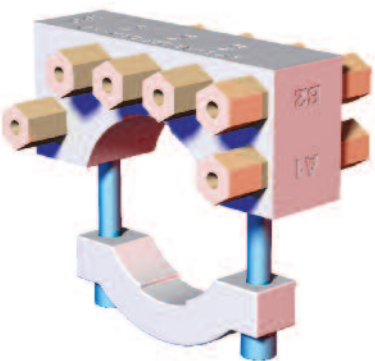
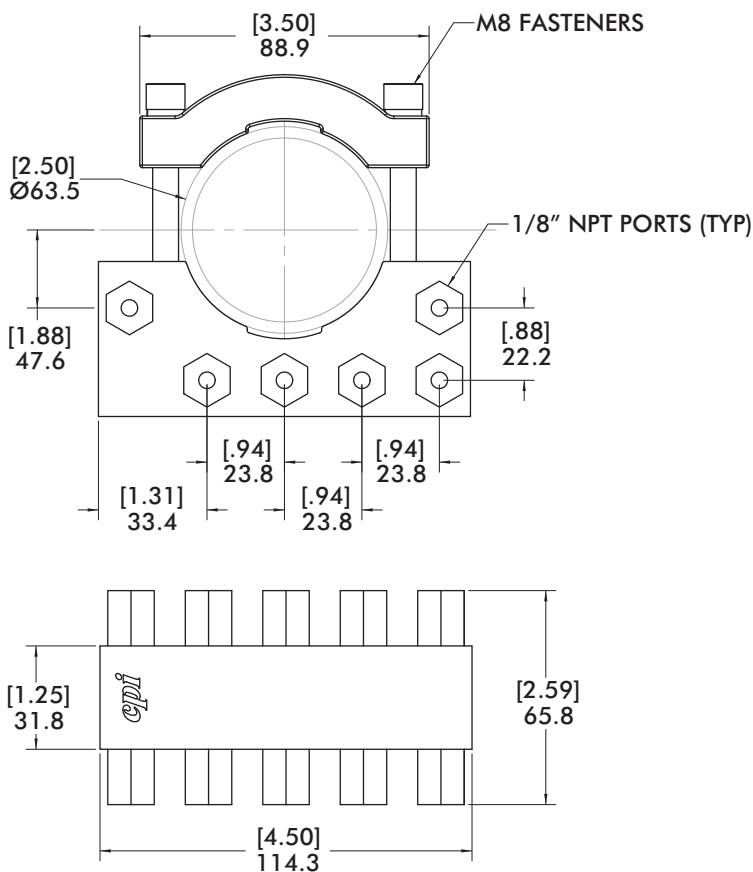
Manifolds

Boom Mounted Single 6-Port Manifold

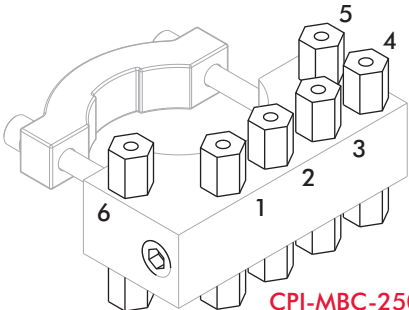


Specifications:
Material: Aluminum

- Features:**
- Provides a 6-port air distribution system mounted on the boom.
 - Easy access.



CPI-MBC-250-3V1B-AB

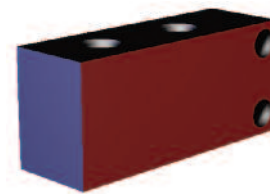
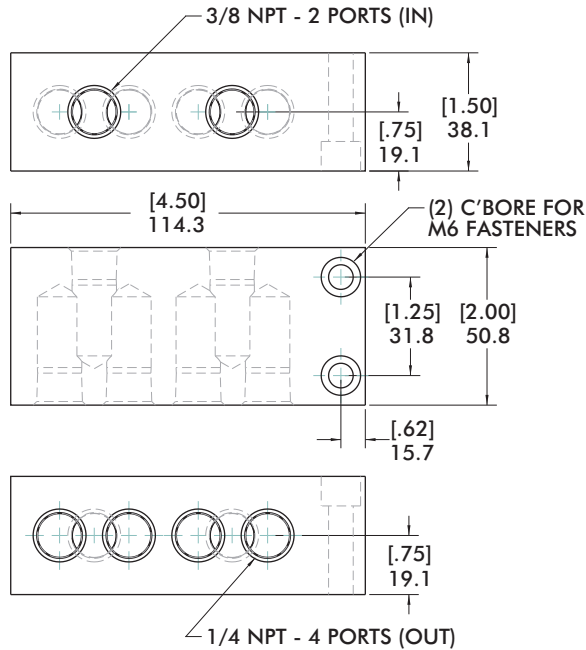


CPI-MBC-250-4V2B

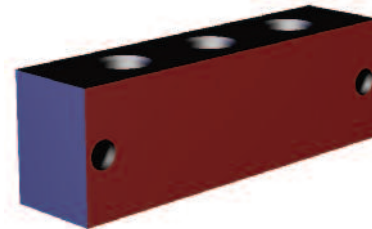
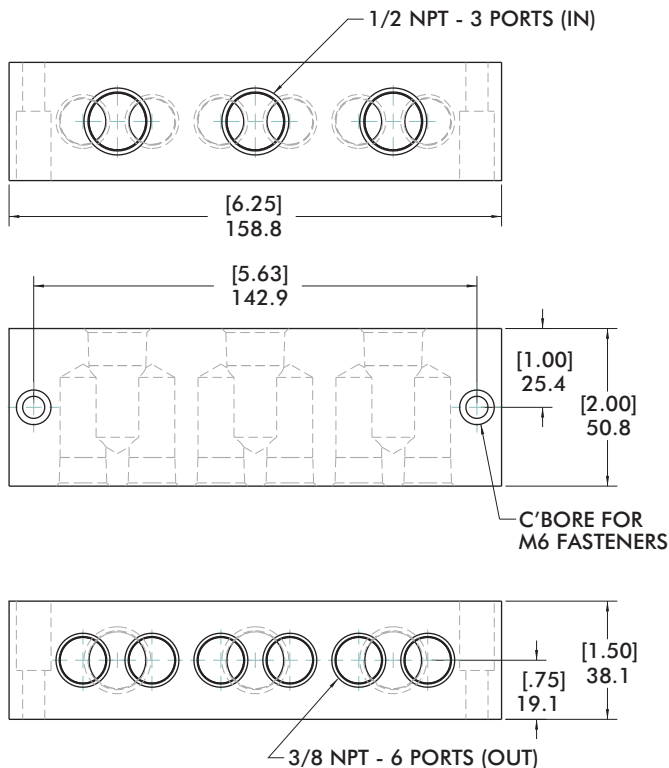


Manifolds

Block Style Manifold for Remote Mounting



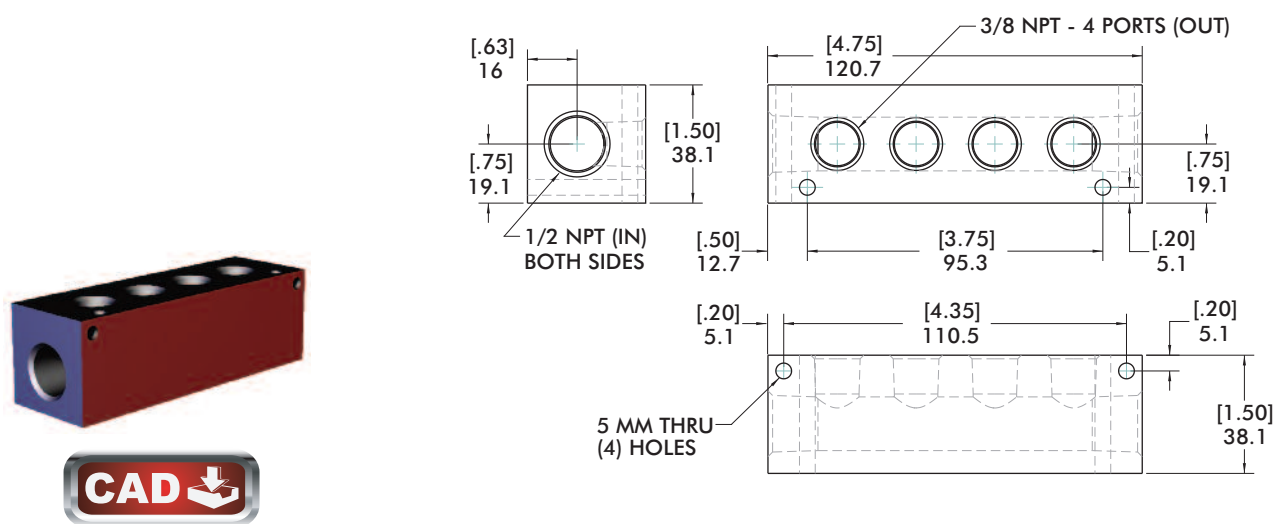
MODEL NUMBER	WEIGHT
CPI-GDA-M24-3737	.49kg [1.2 lb]



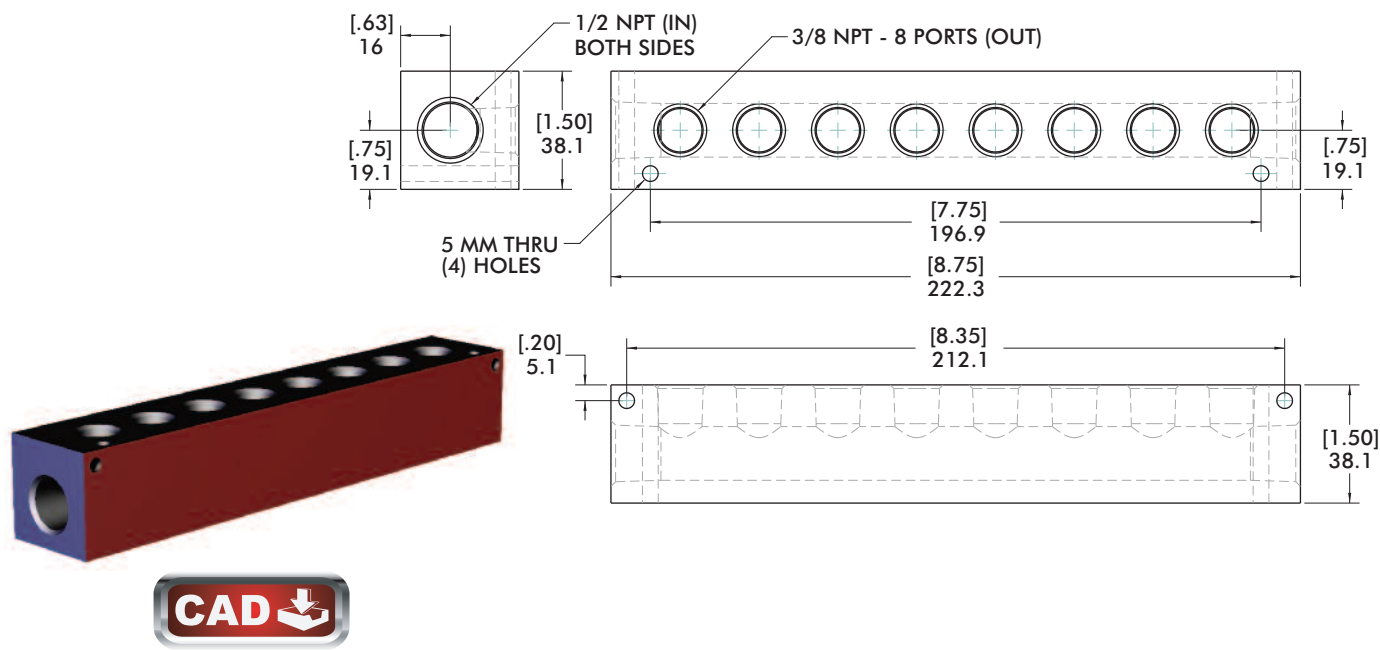
MODEL NUMBER	WEIGHT
CPI-MMB-4V2B-LG	.65kg [1.4 lb]

Manifolds

Block Style Manifold for Remote Mounting



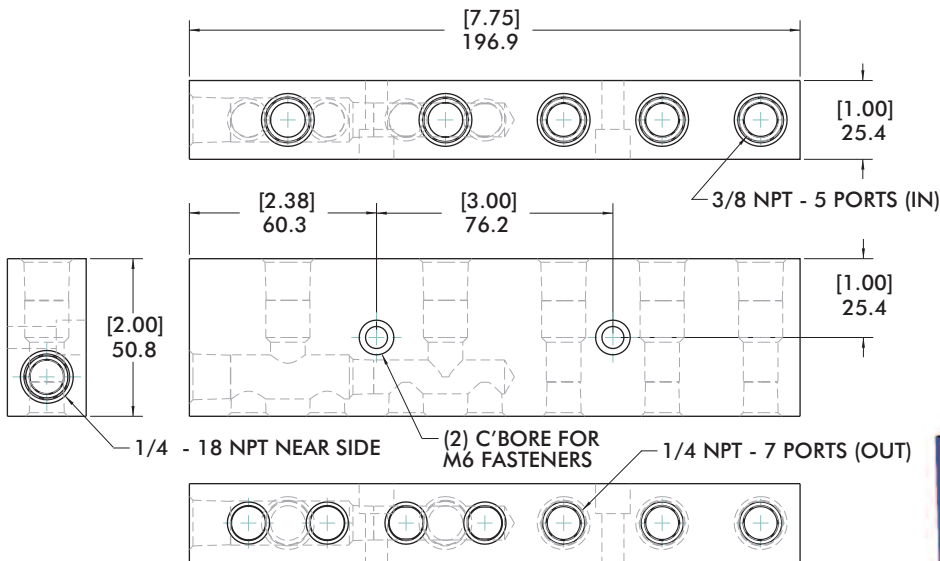
MODEL NUMBER	WEIGHT
CPI-MMB-4P	.36kg [.80 lb]



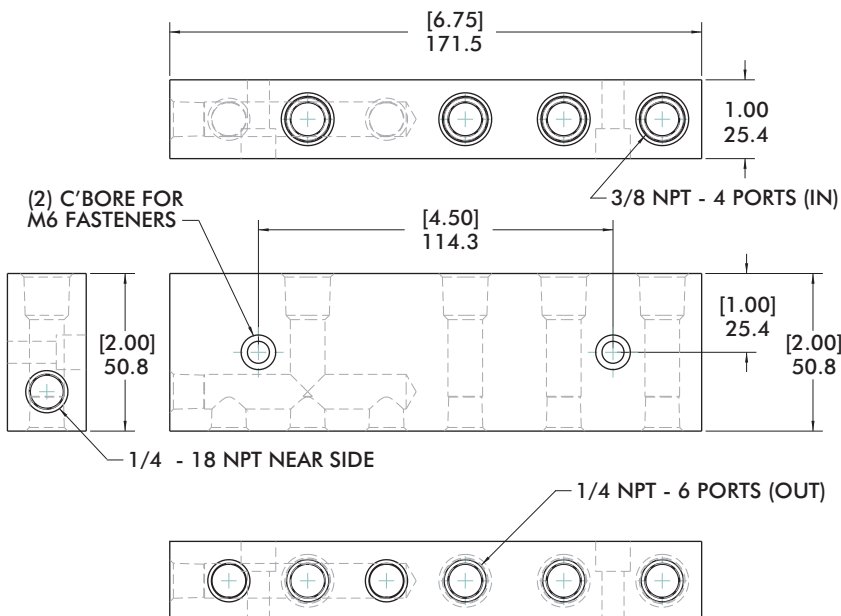
MODEL NUMBER	WEIGHT
CPI-MMB-8P	.67kg [1.5 lb]

Manifolds

Block Style Manifold for Remote Mounting



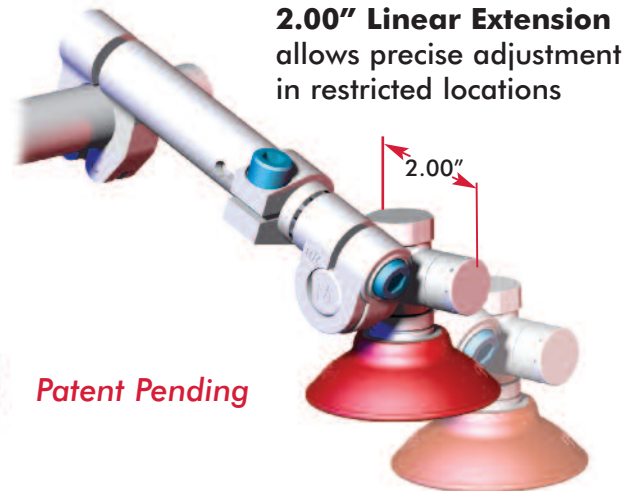
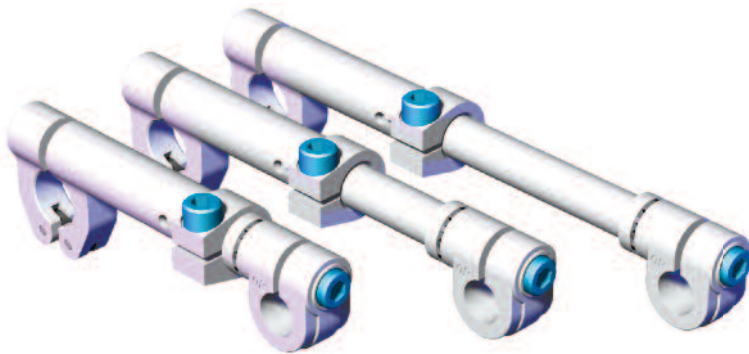
MODEL NUMBER	WEIGHT
CPI-MMB-4VSP-AB	.55kg [1.2 lb]



MODEL NUMBER	WEIGHT
CPI-MMB-3V1B-AB	.50kg [1.1 lb]

DE-STA-CO Vacuum Products Products used with Vacuum Products

"Extend Arm" Swivel Arms are available in (3) standard lengths to offer (3) ranges of linear adjustability.



Three-bolt adjustment system; (2) bolts for individual adjustment of each joint along with (1) bolt for linear Adjustment. Adjust a single point of axis while the other areas of adjustment remains secure.

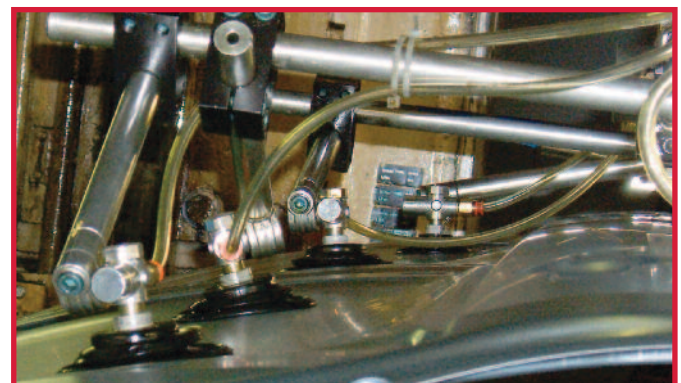
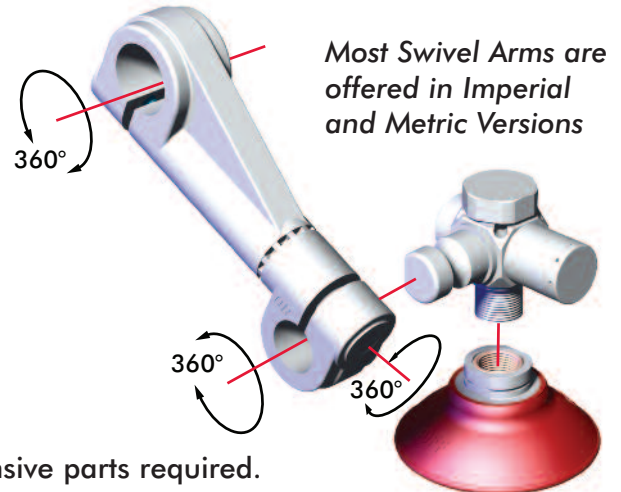
Double-Hinge Design provides even clamping force to better hold mounting position. End opens to allow mounting in the center of tube/bar without removing existing components. These features reduce downtime for setup and adjustment.



Standard Swivel Arms offers a versatile attachment point for vacuum generators and adaptors, proximity switches and nest mounts brackets.

Single-Bolt adjustment for (3) axis
Standard Swivel Arms, as well as Single-Bolt Transition Swivel Arms, and Single End Extensions all share the convenient one-bolt design for quick setup, easy assembly and adjustment. Tool setup is therefore quick and easy, saving time and money.

360° of adjustment in (3) different axes
Easily locate cups on most panels. No special or expensive parts required.





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DE-STA-CO GLOBAL LOCATIONS

NORTH AMERICA

DE-STA-CO Headquarters
Auburn Hills, Michigan
Tel: 1.248.836.6700
Marketing: marketing@destaco.com

Auburn Hills, Michigan
Tel: 1.888.DESTACO
Customer Service: cs-workholding@destaco.com

Wheeling, Illinois
Tel: 1.800.645.5207
Customer Service: camco@destaco.com

Monroe, Connecticut
Tel: 1.888.DESTACO
Customer Service: cs-automation@destaco.com

Charlevoix, Michigan
Tel: 1.888.DESTACO
Customer Service: cs-automotive@destaco.com

SOUTH AMERICA

Brazil
Tel: 0800-124070
Customer Service: samerica@destaco.com

ASIA

Thailand
Tel: +66-2-326-0812
Customer Service: info@destaco.com

China
Tel: +86-21-6081-2888
Customer Service: china@destaco.com

India
Tel: +91-80-41123421-426
Customer Service: india@destaco.com

EUROPE

Germany
Tel: +49-6171-705-0
Customer Service: europe@destaco.com

France
Tel: +33-1-3996-5000
Customer Service: france@destaco.com

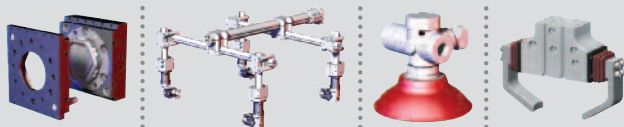
UK
Tel: +44-1902-797980
Customer Service: uk@destaco.com

Spain
Tel: +34-936361680
Customer Service: spain@destaco.com

Netherlands
Tel: +31-297285332
Customer Service: benelux@destaco.com



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1025 Doris Road
Auburn Hills, MI 48326
Fax: (248) 836-6740
Technical Support E-mail:
tech-automotive@destaco.com
www.destaco.com