





# Adjustable Air Amplifiers/ Blowers

## CDF Series

### Air Amplifier - Blower: *High Output Flow*

The CDF Series air amplifiers generate high output flow using a small volume of compressed air. This efficient use of air makes CDF air amplifiers a cost-effective alternative to electric blowers or raw compressed air.



*CDF 500H dries bottles, cans or other containers after filling or washing*



*CDF 750H removes fumes, air, smoke or mist from cabinets, storage lockers or other enclosures.*

### Air Amplifier - Material Handling: *High Vacuum Flow*

CDF Series air amplifiers generate high vacuum flow, overcoming leaks inherent in handling porous objects such as foam or fabric. With or without a vacuum cup, CDF air amplifiers will safely transfer irregular shaped items. For more on material handling, see next page.



*Overcomes leaks from wrinkled or flexible materials*



*Handle irregular surfaces, foam and other porous materials*

### Eliminate the Guesswork: Contact Us!

Vacuum technology isn't an exact science. To ensure proper product selection, Vaccon offers free application engineering assistance, a 30 Day Test & Evaluation Program or you can send sample products to our in-house test facility and we will test and size a pump for you.

To download a complete set of drawings in 13 different CAD formats, please visit our website at [www.vaccon.com](http://www.vaccon.com)

For more information or technical assistance, please call 508-359-7200 or 800-848-8788 or email [engineering@vaccon.com](mailto:engineering@vaccon.com)

### Ideal Applications:

- Inflation & Deflation
- Pick & place of porous materials
- Drying
- Cooling
- Air bearing
- Fume evacuation
- Material handling of irregular/flexible surfaces
- Bag or pouch opening

### Features and Benefits:

- Field adjustable for individual applications
- High performance – 40:1 amplification ratio
- Holds porous materials securely
- Easy to install – compact & lightweight
- Efficient – Instant response, minimal energy required
- Safe operation
  - ~ No electricity needed at the pump
  - ~ No heat generated
  - ~ Control output pressure, no bursting
- Reliable, durable, trouble-free operation:
  - ~ Ideal for adverse operating conditions
  - ~ No moving parts to wear
  - ~ Straight-through design, non-clogging
  - ~ No downtime

### Standard Adjustable Air Amplifiers:

To meet a wide range of applications, air velocity and air flow are field adjustable to compensate for the pressure level supplied. CDF air amplifiers can achieve amplification ratios as high as 40:1 (output to input)

The CDF air amplifier's straight-through design allows dirt and debris to pass through without clogging providing maintenance-free operation.

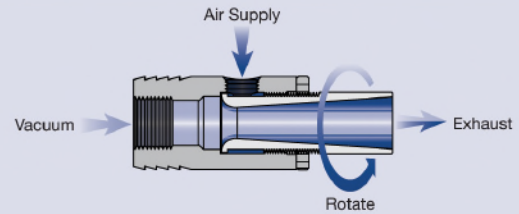
Vaccon air amplifiers are energy efficient; unlike regenerative blowers that must run continuously. Incorporating a solenoid valve for instant on/off control; CDF's are only on when air is needed.

### Air Amplifier Options:

- 10 Standard models (bores from 1/8" [3mm] to 2" [50mm])
- EPT – Exhaust Port Threads – factory installed – for ease of mounting and fixed plumbing systems
- ST Silencers – straight through silencers won't clog
- G Port or metric threads – products with an "I" prefix designates metric threads
- Variable operating pressures: for maximum performance, Vaccon recommends pressures above 50 PSI [3.5 bar]
- For chemical compatibility, heat and environmental requirements, food and medical applications, custom materials are available: stainless steel, Delrin®, Teflon®, PVC, and more. Consult factory.

## Principles of Operation:

CDF pumps operate on the "Coanda Effect" where a small volume of compressed air is converted into a large flow of ambient air. Compressed air is emitted from an annular gap and passes over a curved surface into the throat of the unit. As the air passes over this curved surface, similar to an airfoil, a low pressure area is created inducing ambient air to flow into the throat with the compressed air.



## Adjustable Air Amplifier - Material Handling

Vaccon Air Amplifiers easily and safely handle porous objects that many consider too challenging to handle with vacuum. Applications include automating sheet feeders, assembly and palletizers, conveyor transfer and packaging of such products as:

- Egg crate sheets of foam or felt
- Circuit boards
- IV bags
- Freshly baked cakes or pastries
- Perforated metal
- Frozen foods
- Fan scrolls

Producing low vacuum and high flow, CDF's handle crumbly, delicate products like birthday cakes with a soft touch and without leaving an impression on the surface.

Silencers are not required when using the output flow for cooling, drying, or fume extraction, however they are highly recommended for material handling applications.

Two installation options; simply connect to the vacuum port via the internal NPT threads or slip a hose over the barbs featured on the O.D. You can use CDF Air Amplifiers with and without a vacuum cup.



*Handle felt mats with the use of the UH Series rigid cup*



*Remove cakes from a conveyor and place in box without damage*

## CDF Series Air Amplifiers Standard Specifications:

<b>Body Material:</b>	Anodized Aluminum Standard (For silencer material - see page 245)	
<b>Medium:</b>	Filtered (50 Micron) un-lubricated, non-corrosive dry gases	
<b>Operating Temperature:</b>	-100° to ~ 400° F [-73° to ~204°C] without silencer	
<b>Operating Pressure:</b>	Variable – For maximum performance Vaccon recommends 50 PSI [3.5 bar] and above	

## CDF Series Air Amplifiers Operating and Installation Requirements:

<b>Model:</b>	CDF 100, 200, 200H, 375H	CDF 500H, 750H 1000H, 1500H, 2000H
<b>Supply Line:</b>	1/4" I.D. [4mm] tube recommended	3/8" I.D. [10mm] tube recommended
<b>Control Valve:</b>	Minimum orifice 0.125"	Minimum orifice 0.250"

*Replace your high air consumption air guns with a Vaccon CDF Air Amplifier.*

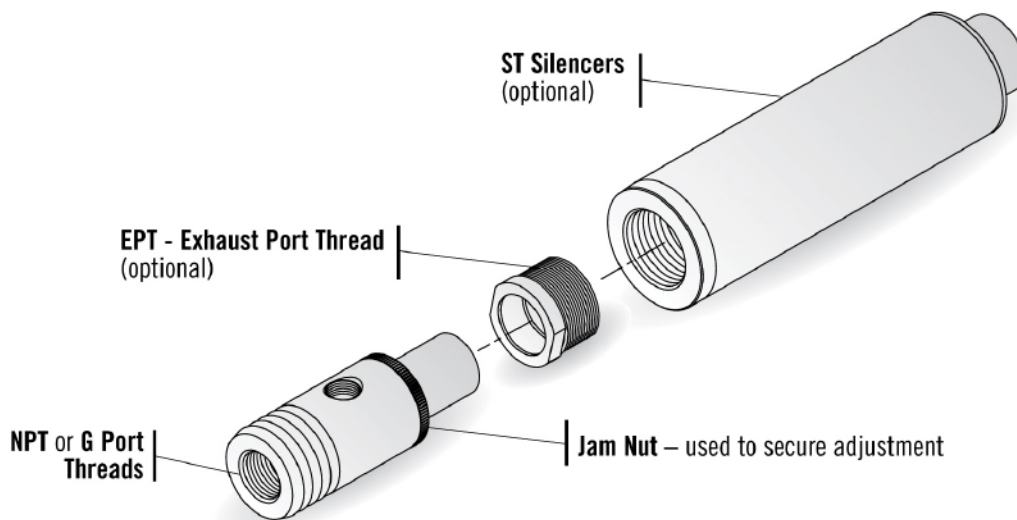




# Adjustable Air Amplifiers/Blower

## CDF Series Configurations and Options:

Please configure your Air Amplifier from the options listed below.



## How to Specify:

	CDF 500 H	EPT100	ST16FC	
<b>P/N</b>	<b>Vacuum &amp; Air Supply Imperial Port Threads</b>	<b>All Exhaust Port Threads are NPT**</b>	<b>Silencer***</b>	<b>P/N</b>
CDF 100	NPT	EPT25	ST4AX	303
CDF 200	NPT	EPT25	ST4AX	304
CDF 200H	NPT	EPT25	ST4AX	316
CDF 375H	NPT	EPT38	ST6BX	316L
CDF 500H	NPT	EPT100	ST16FC	PVC
CDF 750H	NPT	EPT107	ST16FC	DEL
CDF 1000H	NPT	EPT125	ST24FC	
CDF 1500H	NPT	EPT200	N/A	
CDF 1500H	NPT	Not required	ST2020	
CDF 2000H	NPT	N/A	N/A	
<b>P/N</b>	<b>Vacuum &amp; Air Supply Metric Port Threads</b>	<b>All Exhaust Port Threads are NPT**</b>	<b>Silencer***</b>	<b>Material</b>
I-CDF 100	G Port	EPT25	ST4AX	Anodized Aluminum (Std)
I-CDF 200	G Port	EPT25	ST4AX	303 Stainless Steel*
I-CDF 200H	G Port	EPT25	ST4AX	304 Stainless Steel
I-CDF 375H	G Port	EPT38	ST6BX	316 Stainless Steel
I-CDF 500H	G Port	EPT100	ST16FC	316 Low Carbon Stainless
I-CDF 750H	G Port	EPT107	ST16FC	PVC
I-CDF 1000H	G Port	EPT125	ST24FC	Delrin - Acetel
I-CDF 1500H	G Port	EPT200	N/A	
I-CDF 1500H	G Port	Not required	ST2020	
I-CDF 2000H	G Port	N/A	N/A	

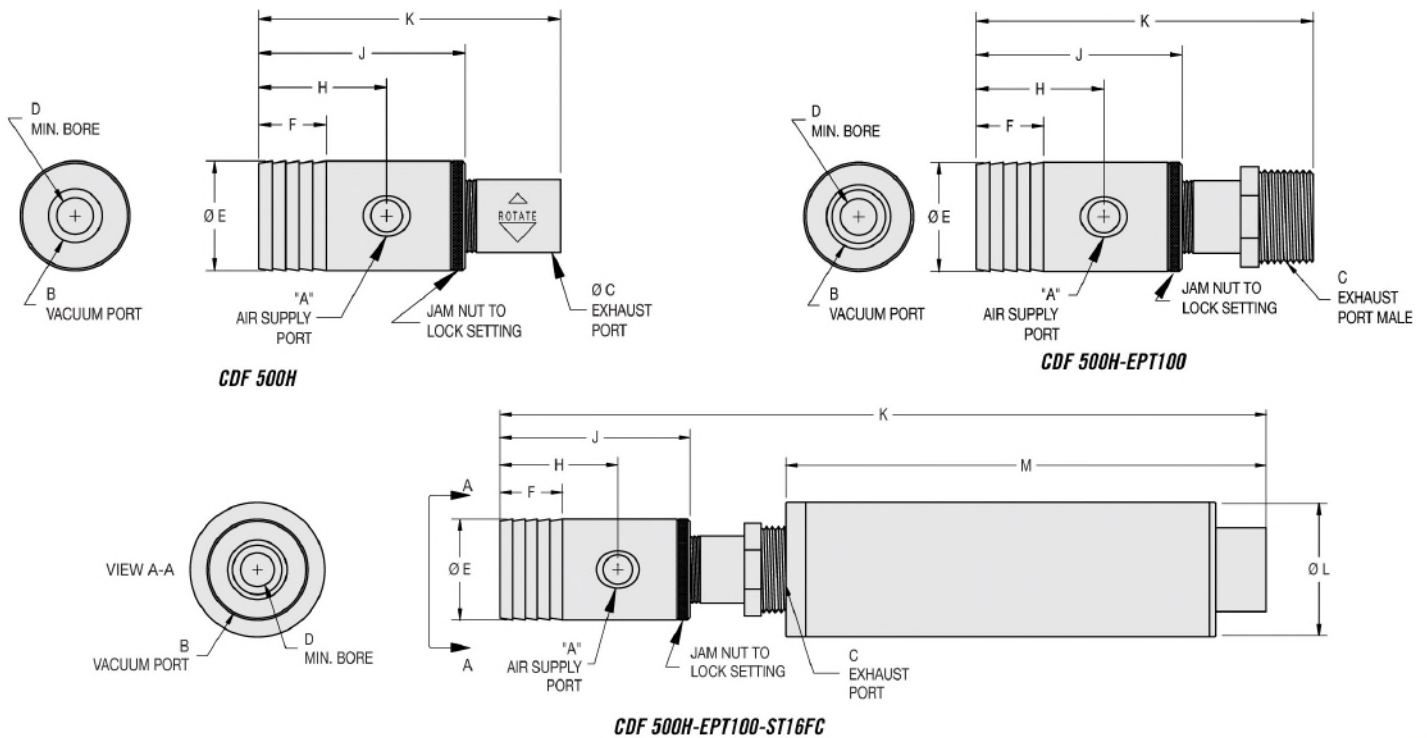
\*CDF 750 and larger not available in 303 stainless steel

Note 1: \*\*EPT (Exhaust Port Thread) must be factory installed.

Note 2: \*\*\*EPT required to attach silencer.

For complete Performance Data, see page 187.

## Standard Pump Dimensions: CDF Series (CDF 500H shown is representative sample of all CDF's)



Model #	CDF Series – Imperial Dimensions (in.)											Weight
	A	B	C	D	E	F	H	J	K	L	M	
CDF 100	1/8 NPT F	–	0.56	0.14	1.25	–	0.44	1.13	2.00	–	–	3.2 oz
CDF 100-EPT25	1/8 NPT F	–	1/4 NPT	0.14	1.25	–	0.44	1.13	2.10	–	–	3.2 oz
CDF 100-EPT25-ST4AX	1/8 NPT F	–	1/4 NPT	0.14	1.25	–	0.44	1.13	5.40	1.00	3.57	3.7 oz
CDF 200	1/8 NPT F	–	0.56	0.25	1.25	–	0.44	1.13	2.00	–	–	2.1 oz
CDF 200-EPT25	1/8 NPT F	–	1/4 NPT	0.25	1.25	–	0.44	1.13	2.10	–	–	2.1 oz
CDF 200-EPT25-ST4AX	1/8 NPT F	–	1/4 NPT	0.25	1.25	–	0.44	1.13	5.40	1.00	3.57	3.7 oz
CDF 200H	1/8 NPT F	3/8 NPT F	0.56	0.25	1.25	0.76	1.21	1.87	2.85	–	–	3.1 oz
CDF 200H-EPT25	1/8 NPT F	3/8 NPT F	1/4 NPT	0.25	1.25	0.76	1.21	1.87	2.85	–	–	3.1 oz
CDF 200H-EPT25-ST4AX	1/8 NPT F	3/8 NPT F	1/4 NPT	0.25	1.25	0.76	1.21	1.87	6.15	1.00	3.57	5.2 oz
CDF 375H	1/8 NPT F	3/8 NPT F	0.69	0.38	1.25	0.76	1.21	1.87	2.85	–	–	3.1 oz
CDF 375H-EPT38	1/8 NPT F	3/8 NPT F	3/8 NPT	0.38	1.25	0.76	1.21	1.87	2.85	–	–	3.1 oz
CDF 375H-EPT38-ST6BX	1/8 NPT F	3/8 NPT F	3/8 NPT	0.38	1.25	0.76	1.21	1.87	7.43	1.25	4.80	6.3 oz
CDF 500H	1/4 NPT F	1/2 NPT F	0.99	0.50	1.49	0.93	1.75	2.83	4.13	–	–	6.3 oz
CDF 500H-EPT100	1/4 NPT F	1/2 NPT F	1 NPT	0.50	1.49	0.93	1.75	2.83	4.63	–	–	7.3 oz
CDF 500H-EPT100-ST16FC	1/4 NPT F	1/2 NPT F	1 NPT	0.50	1.49	0.93	1.75	2.83	11.39	2.00	7.12	14.9 oz
CDF 750H	1/4 NPT F	1 NPT F	1.23	0.75	1.97	0.93	1.75	2.83	4.13	–	–	10.1 oz
CDF 750H-EPT107	1/4 NPT F	1 NPT F	1 NPT	0.75	1.97	0.93	1.75	2.83	5.02	–	–	10.9 oz
CDF 750H-EPT107-ST16FC	1/4 NPT F	1 NPT F	1 NPT	0.75	1.97	0.93	1.75	2.83	11.70	2.00	7.12	1 lb 2 oz
CDF 1000H	1/4 NPT F	1 1/4 NPT F	1.48	1.00	2.22	0.93	1.75	2.83	4.13	–	–	11.5 oz
CDF 1000H-EPT125	1/4 NPT F	1 1/4 NPT F	1 1/2 NPT	1.00	2.22	0.93	1.75	2.83	4.64	–	–	13.2 oz
CDF 1000H-EPT125-ST24F	1/4 NPT F	1 1/4 NPT F	1 1/2 NPT	1.00	2.22	0.93	1.75	2.83	12.00	2.00	7.85	1 lb 5 oz
CDF 1500H	3/8 NPT F	2 NPT F	1.99	1.50	2.72	0.93	1.75	2.83	4.13	–	–	13.3 oz
CDF 1500H-EPT200	3/8 NPT F	2 NPT F	2 NPT	1.50	2.72	0.93	1.75	2.83	4.76	–	–	1 lb
CDF 1500H-ST2020	3/8 NPT F	2 NPT F	Slip fit	1.50	2.72	0.93	1.75	2.83	17.00	3.46	13.62	1 lb 8 oz
CDF 2000H	3/8 NPT F	2 1/2 NPT F	2.49	2.00	3.22	0.93	1.75	2.83	4.13	–	–	1 lb 0.5 oz



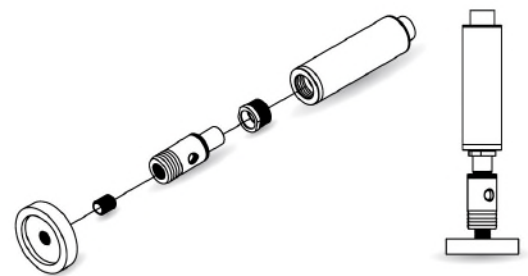
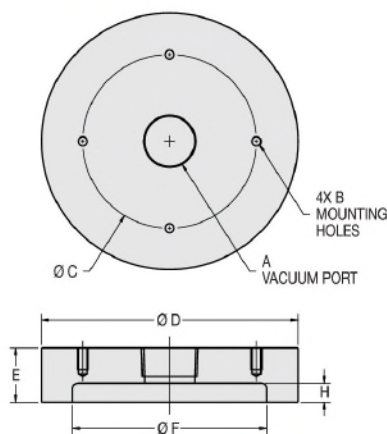
# Adjustable Air Amplifiers/Blower

Model #	CDF Series – Metric (mm.)											Weight
	A	B	C	D	E	F	H	J	K	L	M	
I-CDF 100	G 1/8	–	14.2	3.6	31.8	–	11.2	28.7	50.8	–	–	91 grams
I-CDF 100-EPT25	G 1/8	–	1/4 NPT	3.6	31.8	–	11.2	28.7	53.3	–	–	91 grams
I-CDF 100-EPT25-ST4AX	G 1/8	–	1/4 NPT	3.6	31.8	–	11.2	28.7	137.2	25.4	90.7	105 grams
I-CDF 200	G 1/8	–	14.2	6.4	31.8	–	11.2	28.7	50.8	–	–	60 grams
I-CDF 200-EPT25	G 1/8	–	1/4 NPT	6.4	31.8	–	11.2	28.7	53.3	–	–	60 grams
I-CDF 200-EPT25-ST4AX	G 1/8	–	1/4 NPT	6.4	31.8	–	11.2	28.7	137.2	25.4	90.7	105 grams
I-CDF 200H	G 1/8	G 3/8	14.2	6.4	31.8	19.3	30.7	47.5	72.4	–	–	88 grams
I-CDF 200H-EPT25	G 1/8	G 3/8	1/4 NPT	6.4	31.8	19.3	30.7	47.5	72.4	–	–	88 grams
I-CDF 200H-EPT25-ST4AX	G 1/8	G 3/8	1/4 NPT	6.4	31.8	19.3	30.7	47.5	156.2	25.4	90.7	147 grams
I-CDF 375H	G 1/8	G 3/8	17.5	9.5	31.8	19.3	30.7	47.5	72.4	–	–	88 grams
I-CDF 375H-EPT38	G 1/8	G 3/8	3/8 NPT	9.5	31.8	19.3	30.7	47.5	72.4	–	–	88 grams
I-CDF 375H-EPT38-ST6BX	G 1/8	G 3/8	3/8 NPT	9.5	31.8	19.3	30.7	47.5	188.7	31.8	121.9	179 grams
I-CDF 500H	G 1/4	G 1/2	25.1	12.7	37.8	23.6	44.5	71.9	104.9	–	–	179 grams
I-CDF 500H-EPT100	G 1/4	G 1/2	1 NPT	12.7	37.8	23.6	44.5	71.9	117.6	–	–	207 grams
I-CDF 500H-EPT100-ST16FC	G 1/4	G 1/2	1 NPT	12.7	37.8	23.6	44.5	71.9	289.3	50.8	180.8	422 grams
I-CDF 750H	G 1/4	G 1	31.2	19.1	50.0	23.6	44.5	71.9	104.9	–	–	286 grams
I-CDF 750H-EPT107	G 1/4	G 1	1 NPT	19.1	50.0	23.6	44.5	71.9	127.5	–	–	309 grams
I-CDF 750H-EPT107-ST16FC	G 1/4	G 1	1 NPT	19.1	50.0	23.6	44.5	71.9	297.2	50.8	180.8	519 grams
I-CDF 1000H	G 1/4	G 1 1/4	37.6	25.4	56.4	23.6	44.5	71.9	104.9	–	–	326 grams
I-CDF 1000H-EPT125	G 1/4	G 1 1/4	1 1/2 NPT	25.4	56.4	23.6	44.5	71.9	117.9	–	–	374 grams
I-CDF 1000H-EPT125-ST24F	G 1/4	G 1 1/4	1 1/2 NPT	25.4	56.4	23.6	44.5	71.9	304.8	50.8	199.4	595 grams
I-CDF 1500H	G 3/8	G 2	50.5	38.1	69.1	23.6	44.5	71.9	104.9	–	–	377 grams
I-CDF 1500H-EPT200	G 3/8	G 2	G2	38.1	69.1	23.6	44.5	71.9	120.9	–	–	454 grams
I-CDF 1500H-ST2020	G 3/8	G 2	Slip fit	38.1	69.1	23.6	44.5	71.9	431.8	87.9	345.9	692 grams
I-CDF 2000H	G 3/8	G 2 1/2	63.2	50.8	81.8	23.6	44.5	71.9	104.9	–	–	468 grams

## UH Series Cups: Material Handling Applications



Material: UHMW



CDF Assembly with UH Cup and attachment

UH Series Cups	Imperial Dimensions (in.)								Weight
	A	B	C	D	E	F	H		
VC-UH6-16	1 NPT	1/4-20 x .50 deep	4.00	5.91	1.25	4.47	0.44	14.8 oz	
VC-UH6-16-TL	1 NPT	1/4-20 x .50 deep	4.00	5.91	1.25	5.60	0.44	12.2 oz	
	Metric Dimensions (mm)								Weight
	A	B	C	D	E	F	H		
I-VC-UH6-16	G 1	M6 X 1.0 x 12mm deep	101.6	150.1	31.8	113.5	11.2	420 grams	
I-VC-UH6-16-TL	G 1	M6 X 1.0 x 12mm deep	101.6	150.1	31.8	142.2	11.2	346 grams	

## CDF Series Performance Data &amp; Graphs for Ducted Flow

CDF Performance Data – Imperial			
Model #	Maximum Vacuum Level – “Hg	Maximum Vacuum Flow – SCFM	Maximum Exhaust Output – SCFM
CDF 100	15	4	6
CDF 200	9	12	16
CDF 200H	9	12	16
CDF 375H	8	28	36
CDF 500H	7	55	70
CDF 750H	5	110	140
CDF 1000H	3	130	180
CDF 1500H	3	250	300
CDF 2000H	1	330	390
CDF Performance Data – Metric			
Model #	Maximum Vacuum Level – mbar	Maximum Vacuum Flow – lpm	Maximum Exhaust Output – lpm
I-CDF 100	508	113	170
I-CDF 200	305	340	453
I-CDF 200H	305	340	453
I-CDF 375H	271	793	1019
I-CDF 500H	237	1557	1982
I-CDF 750H	169	3115	3964
I-CDF 1000H	102	3681	5097
I-CDF 1500H	102	7079	8495
I-CDF 2000H	34	9345	11044

Consult individual performance data charts for air consumption values at desired operation position.

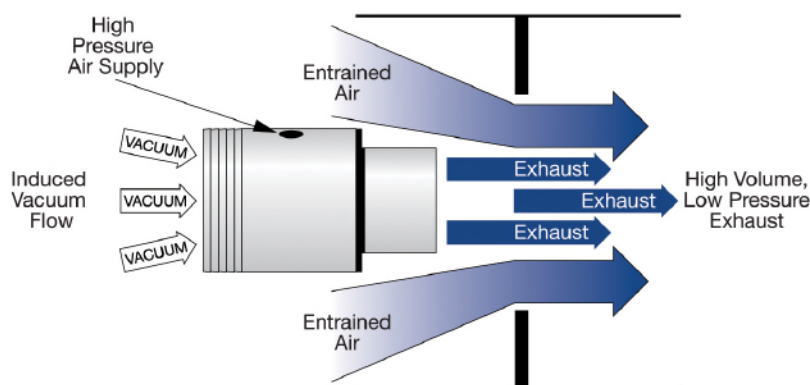
## Unducted Flow vs Ducted Flow

## Unducted Flow

The amplification ratio of the CDF Series is greatly increased when the output from the amplifier is open to the atmosphere allowing the high speed air flow exiting the amplifier to entrain surrounding air to create a greater flow with amplification ratios up to 40:1. Total output flow is the combination of entrained air, induced air and compressed air.

## Ducted Flow

When the exhaust side of the amplifier has a duct attached to it, it cannot draw air in from its surroundings. Therefore, amplification is only created by the internal vacuum created at the suction port. Total output flow is the combination of induced flow and compressed air.

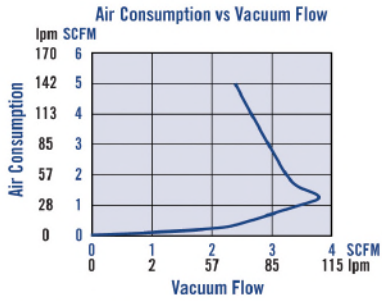




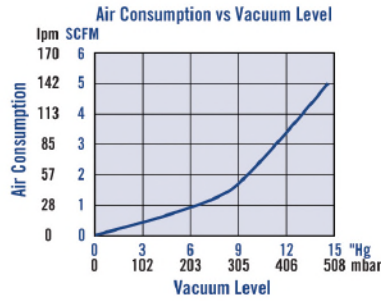
## CDF 100 Series



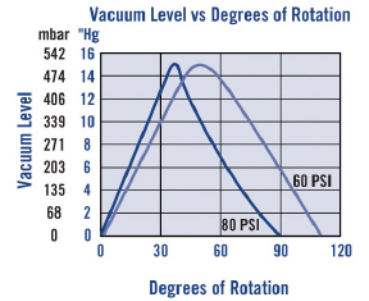
**CDF 100**



**CDF 100-EPT25**



**CDF 100-EPT25-ST4AX**



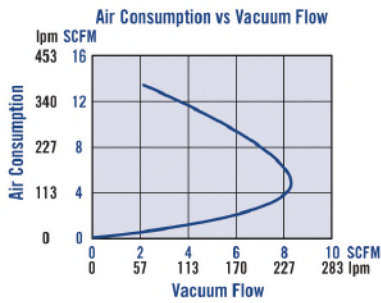
## CDF 200 & 200H Series



**CDF 200**



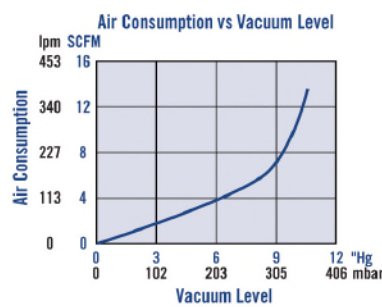
**CDF 200H**



**CDF 200-EPT25**



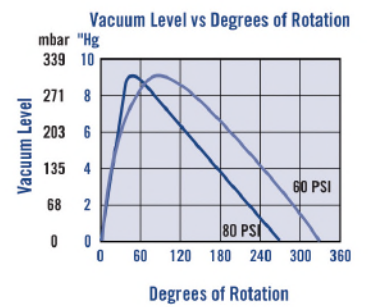
**CDF 200H-EPT25**



**CDF 200-EPT25-ST4AX**



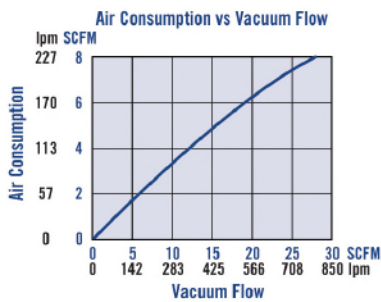
**CDF 200H-EPT25-ST4AX**



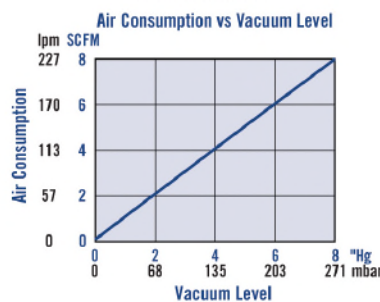
## CDF 375H Series



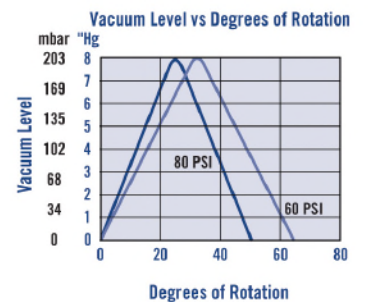
**CDF 375H**



**CDF 375H-EPT38**



**CDF 375H-EPT38-ST6BX**

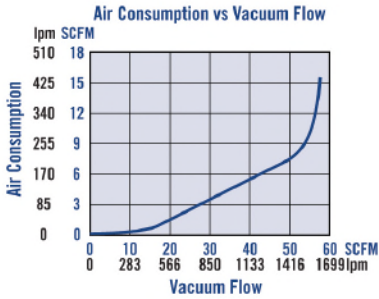




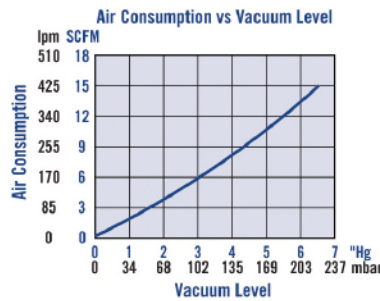
## CDF 500H Series



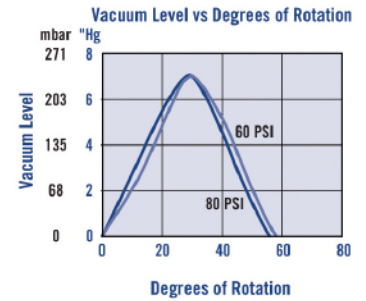
**CDF 500H**



**CDF 500H-EPT100**



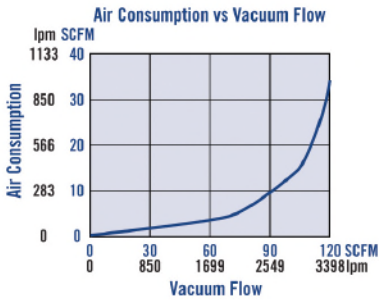
**CDF 500H-EPT100-ST16FC**



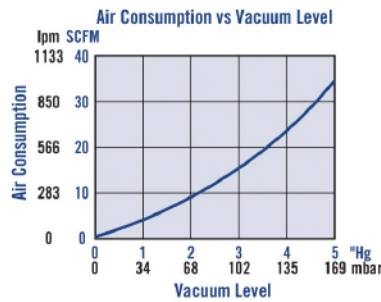
## CDF 750H Series



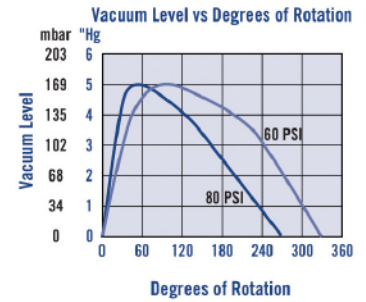
**CDF 750H**



**CDF 750H-EPT107**



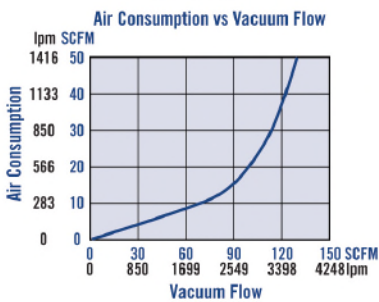
**CDF 750H-EPT107-ST16FC**



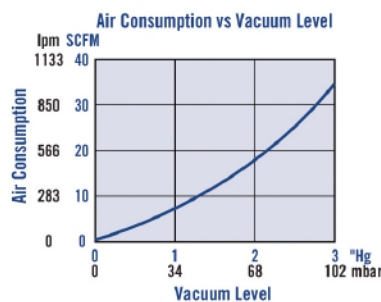
## CDF 1000H Series



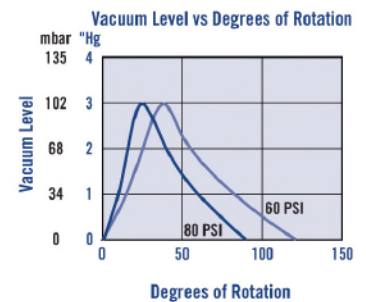
**CDF 1000H**



**CDF 1000H-EPT125**



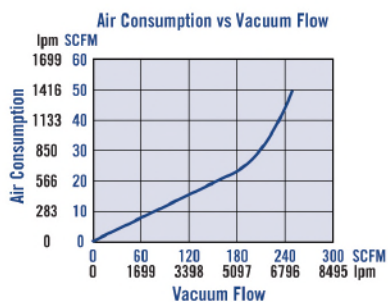
**CDF 1000H-EPT125-ST24FC**



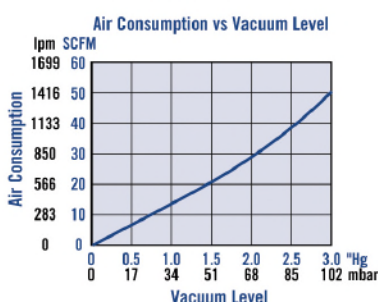
## CDF 1500H Series



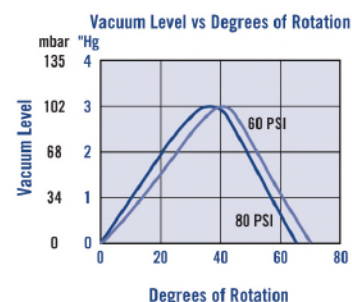
**CDF 1500H**



**CDF 1500H-EPT200**



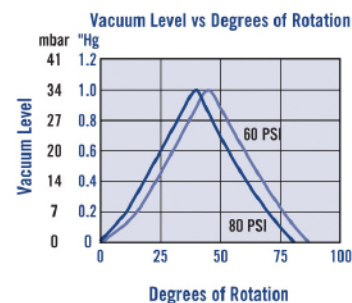
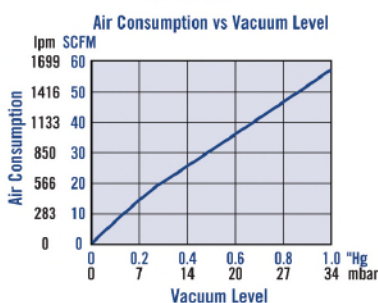
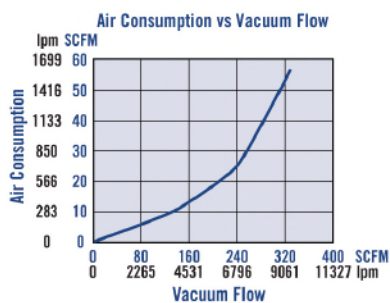
**CDF 1500H-ST2020**



## CDF 2000H Series



**CDF 2000H**



### CDF Series – Noise Levels at 80 PSI

Model #	Silencer Options				
	Silencer #	With Silencer		Without Silencer	
		Open Flow	Sealed Vacuum	Open Flow	Sealed Vacuum
CDF 100 - EPT25	ST4AX	76db	74db	88db	88db
CDF 200 - EPT25	ST4AX	86db	78db	98db	94db
CDF 200H - EPT25	ST4AX	86db	78db	98db	94db
CDF 375H - EPT38	ST46BX	74db	70db	78db	84db
CDF 500H - EPT100	ST16FC	72db	78db	84db	96db
CDF 750H - EPT107	ST16FC	78db	80db	86db	96db
CDF 1000H - EPT125	ST24F	80db	82db	86db	96db
CDF 1500H	ST2020	80db	82db	86db	96db
CDF 2000H	N/A	N/A	N/A	88db	94db



## Custom Air Amplifiers – CDF Series

*Ideal for OEM engineers and designers*

**Creative Engineering • Precision Manufacturing • Extensive Application Experience**

When off the shelf doesn't work, Vaccon's engineering expertise and manufacturing capabilities can provide custom solutions to your specifications.

Whether it's as simple as modifying a standard product, or more complex requiring new products with specific features, or special materials, Vaccon has the solution.

### Specialty Materials:

303, 304, 316 and 316L Stainless steel, PVC, PTFE, Acetal, PEEK and more. For chemical compatibility requirements, high temperature, food, medical and caustic applications, custom materials are available including stainless steel, PEEK, Delrin™, Teflon™, PVC.



PVC for chemical resistance.



Stainless Steel for high temperatures or caustic materials.



### CDF-750-PM:

Panel mount thread for easy mounting and installation.



### Custom Products:

Custom CDF with O-rings (not shown) is part of a sub-assembly incorporated into another piece of equipment for compact design. No external plumbing required.

### Custom products for Inflation/Deflation Applications:

Inherent design features in the CDF Series air amplifiers prevents over inflation (bursting), making them the ideal solution for safe inflation and deflation operations.



Custom CDF air amplifier for safe, rapid inflation and deflation of inflatables for marine operations

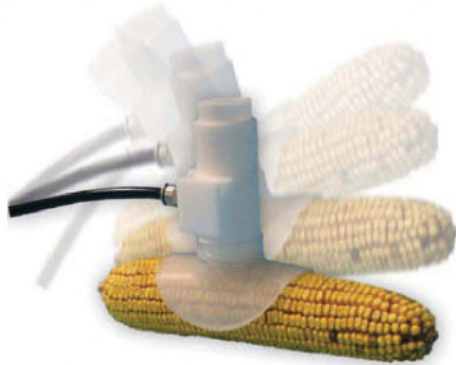


Custom CDF inflates and deflates dunnage bags to protect loads during shipment.

***When size, shape, material and performance matter, it's Vaccon Vacuum Pumps.***

## High Flow Air Amplifier Vacuum Pumps/High Flex Vacuum Cup Assembly

### CDF 750HFM Series - High Flow Vacuum Pumps



*CDF 750HFM-DEL with VCH7-3513 High Flex vacuum cup picking up corn*



*CDF 750HFM with VCHF7-3513 High Flex vacuum cup*

#### Standard Pump:

CDF 750HFM Series vacuum pumps are a modified design of our standard air amplifiers offering the same high vacuum flow and performance capabilities with the added features of an integral High Flex vacuum cup assembly and special mounting configurations for end of arm tooling.

Ideal for handling porous, odd, and inconsistently shaped objects, the CDF 750HFM Series vacuum pumps generate high vacuum flow to overcome leakage providing a safe and reliable lifting force for challenging material handling operations. Using a small volume of compressed air to create high flow output, CDF air amplifiers are an efficient, cost effective automation solution for labor intensive applications.

Vaccon air amplifiers are field-adjustable to meet your process or product specifications. With its inline, straight through design – dirt and debris pass right through, there's no clogging, no downtime.

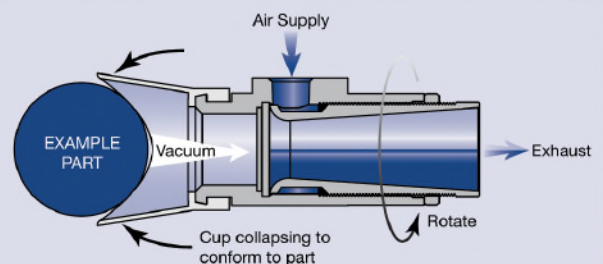
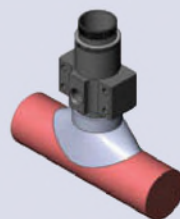
The standard CDF 750HFM Series pumps are made of anodized aluminum. Delrin™ is available for food processing and wash down applications. For information regarding Vaccon's new VCHF7 high flex cups see page 195.

#### Pump Options:

- ST Silencer – straight through silencers won't clog
- G port threads for metric machines – an "I" prefix designates products with metric threads
- Choice of operating pressures: operates at any pressure above 50 PSI [3.5 bar]
- For chemical compatibility requirements, high temperature, food, medical and caustic applications, Delrin™ is available

#### Principles of Operation:

CDF pumps operate on the "Coanda Effect" where a small volume of compressed air is converted into a large flow of ambient air. Compressed air is emitted from an annular gap and passes over a curved surface into the throat of the unit. As the air passes over this curved surface, similar to an airfoil, a low pressure area is created inducing ambient air to flow into the throat with the compressed air.



#### Eliminate the Guesswork: Contact Us!

Vacuum technology isn't an exact science. To ensure proper product selection, Vaccon offers free application engineering assistance, a 30 Day Test & Evaluation Program or you can send sample products to our in-house test facility and we will test and size a pump for you.

To download a complete set of drawings in 13 different CAD formats, please visit our website at [www.vaccon.com](http://www.vaccon.com)

For more information or technical assistance, please call 508-359-7200 or 800-848-8788 or email [engineering@vaccon.com](mailto:engineering@vaccon.com)

#### Ideal Pick & Place Applications/ Industries:

- Fragile Products
- Flexible Polybag Items
- Medical Pouches
- Medical Packaging
- Food Packaging
- Food Processing & Handling:
  - Fruits & Vegetables
  - Bakery Goods
  - Frozen Foods
  - Confections
  - Meats/ Poultry/ Seafood

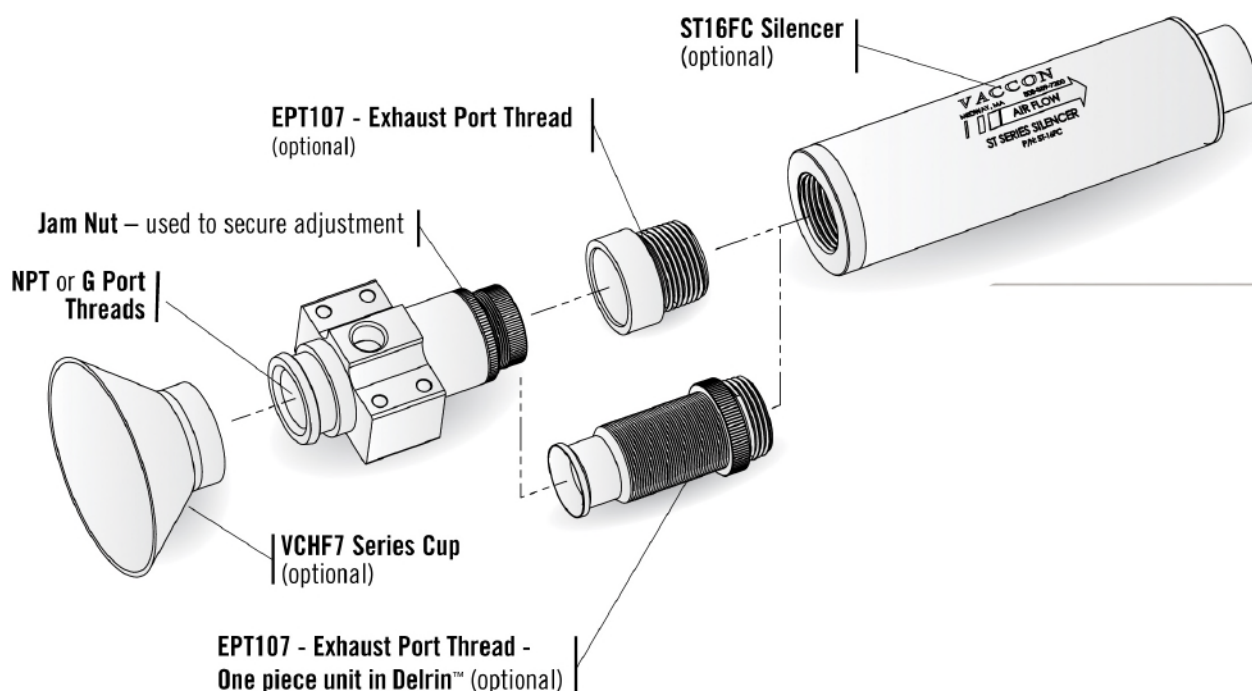
#### Features and Benefits:

- FDA Approved silicone (Food Grade)
- Flexible lip design conforms to rounded objects
- High vacuum flow enables "cup wrapping" to securely hold products
- Accommodates variations in object size and non-conformity
- Fast cycle time for maximum efficiency
- Dirt/debris tolerant to work in any environment
- Field adjustable to meet specific vacuum flow requirements



## CDF 750HFM Series Configurations and Options:

Please configure your Air Amplifier from the options listed below.



### How to Specify:

**CDF 750HFM - DEL - EPT107 - ST16FC**

P/N	Material
CDF 750HFM	Anodized Aluminum
DEL	Delrin™

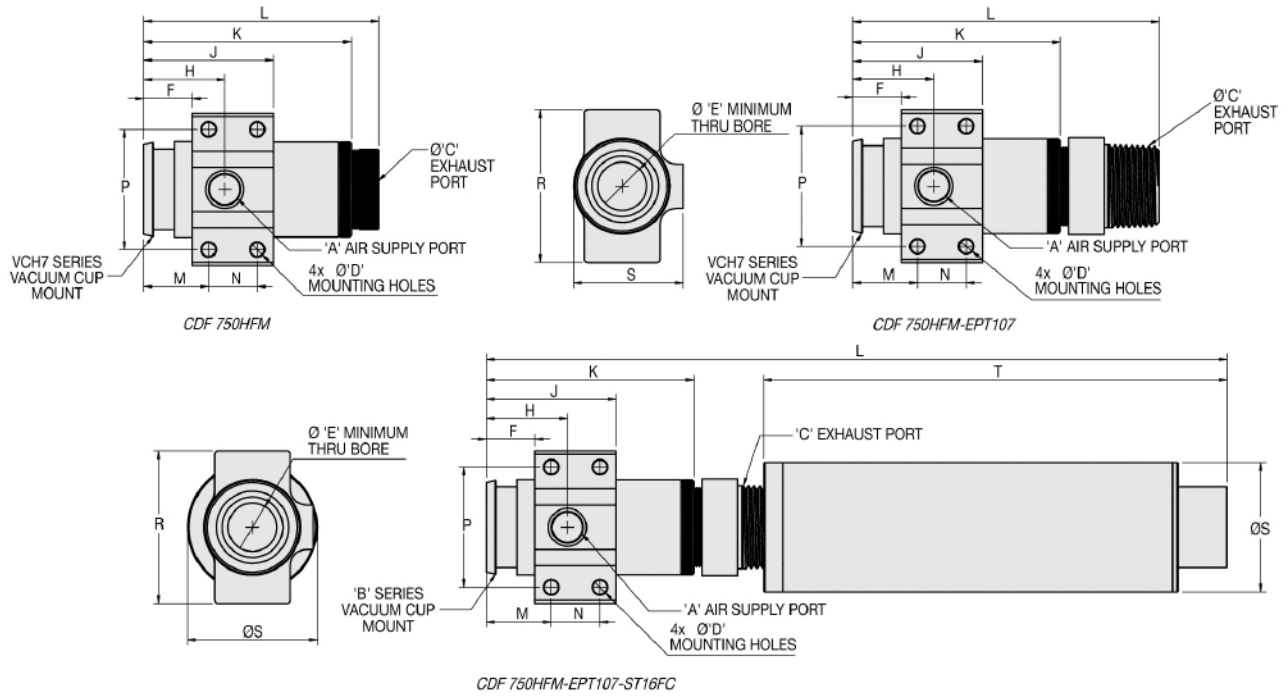
P/N	Silencer*
	None (Standard)
ST16FC	Silencer
*EPT107 required	
P/N	Exhaust Port Threaded
	None (Standard)
EPT107	Exhaust Port Threaded

### CDF 750HFM Series High Flow Pump Standard Specifications:

<b>Body Material:</b>	Anodized Aluminum Standard (For silencer material - see page 245)
<b>Medium:</b>	Filtered (50 Micron) un-lubricated, non-corrosive dry gases
<b>Operating Temperature:</b>	-100° to ~ 400° F [-73° to ~204°C] without silencer
<b>Operating Pressure:</b>	Variable – For maximum performance Vaccon recommends 50 PSI [3.5 bar] and above

### CDF 750HFM Series High Flow Pump Operating and Installation Requirements:

<b>Model:</b>	CDF 750HFM
<b>Supply Line:</b>	3/8" I.D. [10mm] tube recommended
<b>Control Valve:</b>	Minimum orifice 0.250"



Model #	Imperial Dimensions (in.)															
	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T
<b>CDF 750HFM</b>	1/4 NPT F	VCHF7	1.23	0.22	0.75	0.75	1.25	2.00	3.20	3.63	1.00	0.75	1.86	2.36	1.69	-
<b>CDF 750HFM-EPT107</b>	1/4 NPT F	VCHF7	1 NPT F	0.22	0.75	0.75	1.25	2.00	3.20	4.73	1.00	0.75	1.86	2.36	1.69	-
<b>CDF 750HFM-EPT107-ST16FC</b>	1/4 NPT F	VCHF7	1 NPT F	0.22	0.75	0.75	1.25	2.00	3.20	11.42	1.00	0.75	1.86	2.36	2.00	7.14
Model #	Metric Dimensiona (mm)															
	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T
<b>I-CDF 750HFM</b>	G 1/4	VCHF7	31.24	5.56	19.05	19.05	31.75	50.80	81.28	92.08	25.40	19.05	47.14	59.84	42.90	-
<b>I-CDF 750HFM-EPT107</b>	G 1/4	VCHF7	G1	5.56	19.05	19.05	31.75	50.80	81.28	120.02	25.40	19.05	47.14	59.84	42.90	-
<b>I-CDF 750HFM-EPT107-ST16FC</b>	G 1/4	VCHF7	G1	5.56	19.05	19.05	31.75	50.80	81.28	289.94	25.40	19.05	47.14	59.84	50.80	181.36



## High Flex Vacuum Cup - VCHF7 Series -

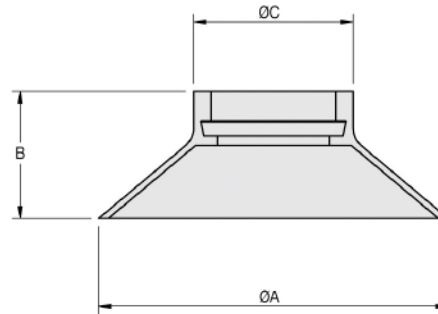
Vaccon's High Flex vacuum cups are made of highly flexible FDA approved silicone that easily conforms to uneven, textured surfaces or wraps around odd shaped items creating a strong seal to securely hold products without distorting or damaging the surface. They provide a soft touch with a strong grip. Would you ever think of picking up a pepperoni pizza using vacuum technology? Now you can.

Our High Flex suction cups mate specifically to the CDF 750HFM Series air amplifiers and include a custom designed attachment mechanism for a complete robotic end-of-arm tool assembly. This unique vacuum pump/cup combination provides a perfect solution for handling and sorting delicate items such fruits, vegetables, packaged foods, bagged items, molded parts and just about any semi-porous, textured or irregular shaped surface.

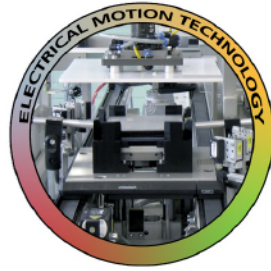
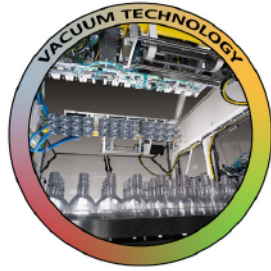
Vaccon's High Flex Vacuum Cups and High Flow air amplifiers are available in FDA approved and medical grade materials.



VCHF7-3513 High Flex Vacuum Cup



Part Number		A - O.D.	Approx. Area sq. in. [sq.mm]	B - Height	C	Cleats	Standard Material	Optional Materials	Weight oz [g]	Pump Group
VCHF7-3513	in.	3.5	9.62	1.30	1.60	NO	FDA SILICONE	NONE	.7 oz	CDF 750HFM
	mm	88.9	6206	18.8	40.6				20 g	
VCHF7-3517	in.	3.5	9.62	1.70	1.60	NO	FDA SILICONE	NONE	.9 oz	CDF 750HFM
	mm	88.9	6206	43.2	40.6				25.7 g	



***Vous avez l'idée, nous la concrétisons.  
Wij verheugen ons op uw aanvraag.  
We look forward to your application.***



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