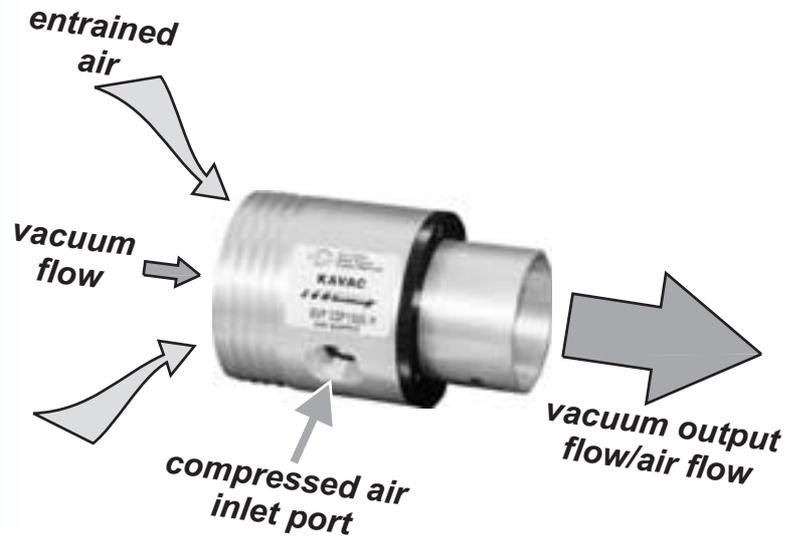


# KVPCDF

## Vacuum Pumps For Air Amplification



### Features

- ◆ High, 40:1 amplification ratios
- ◆ Field adjustable
- ◆ Instant response
- ◆ Cost effective

### Description

The KVPCDF series air amplifiers generate both a high vacuum flow and a high exhaust flow using only a small amount of compressed air. The units can be used for applications requiring high levels of vacuum flow to rapidly evacuate large areas. They can also be used where porosity is a major problem and a conventional vacuum unit does not generate enough flow to offset the loss of vacuum.

The unique design of the pump makes it an efficient and cost effective alternative to electric blowers or large volumes of mainline compressed air.

Seven standard models are available with bores of 3mm to 50mm. Air velocity and flow of all models are field adjustable to provide a wide range of conditions to meet individual application requirements.

Amplification ratios as high as 40:1 (output to input) can be achieved with this series of products.

### Typical Applications

- ◆ Blow drying
- ◆ Fume evacuation
- ◆ Cooling
- ◆ Improved utilisation of mains compressed air

### Ordering Information:

By part number

### Materials

Vacuum Pump body: Anodised aluminium  
Seals: None

### Technical Specifications

Medium: Filtered (50 $\mu$ ) unlubricated air  
Input pressure: 5.5 bar  
Input vacuum flow: 30 to 250 nl/min  
Output: 280 to 10,000 nl/min  
Velocity: 30 to 50 metres/second

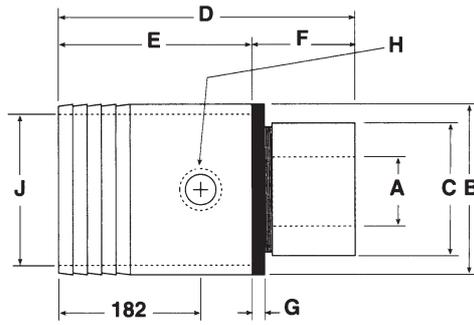
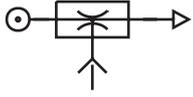
### Principles of Operation

These 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 aircraft aerofoil, a low pressure area is created, inducing ambient air to flow into the throat with the compressed air.



## Dimensions and performance data

units mm



Part number	ØA	ØB	ØC	D	E	F	G	H	J
KVPCDF100H	3	32	14	51	25	19	3	G1/8	-
KVPCDF200H	6	32	14	51	25	19	3	G1/8	-
KVPCDF500H	13	38	25	105	67	38	5	G1/4	G1/2
KVPCDF750H	19	51	32	105	67	38	5	G1/4	G1
KVPCDF1000H	25	57	38	105	67	38	5	G1/4	G1 1/4
KVPCDF1500H	38	70	51	105	67	38	5	G3/8	G2
KVPCDF2000H	51	83	64	105	67	38	5	G3/8	G2 1/2

Part Number	Compressed air		Through velocity m/sec
	Input nl/min @ 5.5 bar	Output nl/min @ 5.5 bar	
KVPCDF100H	90	340	710
	60	230	480
	30	170	360
KVPCDF200H	90	510	260
	60	400	210
	30	280	150
KVPCDF500H	250	2100	280
	140	1200	160
	90	600	80
KVPCDF750H	250	3100	170
	140	2000	130
	90	1100	60
KVPCDF1000H	250	4100	140
	140	2700	90
	90	1600	60
KVPCDF1500H	250	6800	100
	140	4300	60
	90	2400	40
KVPCDF2000H	250	10000	80
	140	6200	50
	90	4000	30