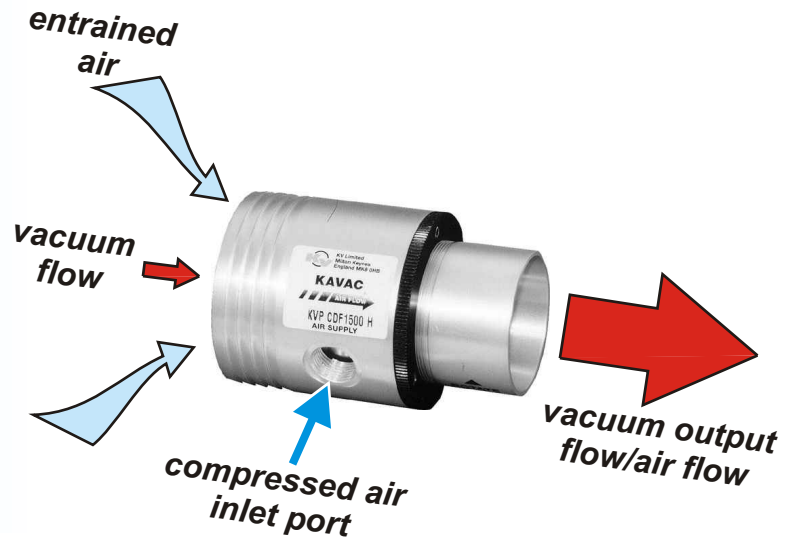


KVPCDF

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

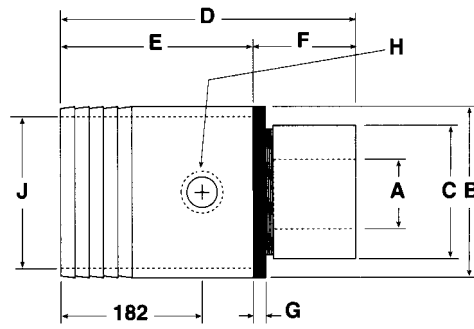
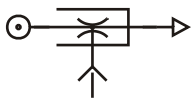
Medium: Filtered (50 μ) non lubricated air
Input pressure: 5.5 bar
Input vacuum flow: 30 to 250 nl/min
Output: 280 to 10,000 nl/min
Velocity: 30 to 50 metres/second

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	3.8	31.2	14.2	50.8	25.4	19.1	3.1	G1/8	-
KVPCDF200H	6.4	32.2	14.2	50.8	25.4	19.1	3.1	G1/8	-
KVPCDF500H	12.7	44.2	25.2	104.8	66.7	38.1	5.1	G1/4	G1/2
KVPCDF750H	19.1	50.6	31.1	104.8	66.7	38.1	5.1	G1/4	G1
KVPCDF1000H	25.4	56.9	37.9	104.8	66.7	38.1	5.1	G1/4	G1 1/4
KVPCDF1500H	38.1	69.6	50.6	104.8	66.7	38.1	5.1	G3/8	G2
KVPCDF2000H	50.1	82.3	63.3	104.8	66.7	38.1	5.1	G3/8	G2 1/2

Part Number	Compressed air		
	Input l/min @ 5.5 bar	Output nl/min	Through velocity m/sec
KVPCDF100H	85	340	715
	57	227	477
	28	170	358
KVPCDF200H	85	510	262
	57	396	209
	28	283	149
KVPCDF500H	255	2124	277
	142	1189	162
	85	623	81
KVPCDF750H	250	3115	172
	140	1982	128
	90	1133	59
KVPCDF1000H	250	4106	133
	140	2690	88
	90	1614	53
KVPCDF1500H	250	6796	96
	140	4248	60
	90	2435	37
KVPCDF2000H	250	9911	82
	140	6230	51
	90	3964	32