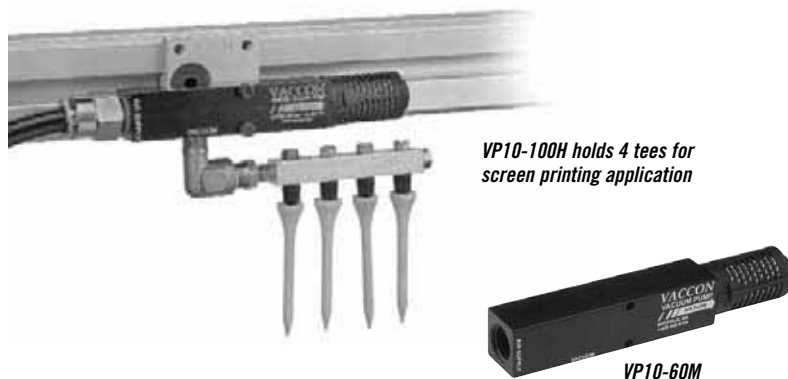


Mid-size Venturi Vacuum Pump with Interchangeable Cartridges and Silencer

Fastvac Mid Series: VP10



Standard Pump:

The VP10 Fastvac Mid Series air-powered venturi vacuum pumps are highly efficient, capable of reaching 28"Hg [948mbar], dirt tolerant, and include a silencer for quiet operation. Lightweight and compact, they can be easily mounted close to the vacuum point for fast response.

All Mid Series pumps incorporate Vaccon's interchangeable venturi cartridge system that allows designers to choose from 11 different cartridge assemblies to optimize pump performance to meet their specific application needs.

Performance Level Designations:

"L" 0-10"Hg [0 to 339mbar] for low vacuum/high flow applications

"M" 0-20"Hg [0 to 677mbar] for medium vacuum/high flow applications

"H" 0-28"Hg [0 to 948mbar] for high vacuum/standard flow applications

Ideal Applications:

- Pick and place small part or medium size object
- End-of-Arm-Tooling/Robotic systems
- Packaging
- Vessel evacuation
- Vacuum clamping/holding fixtures

Features/Benefits

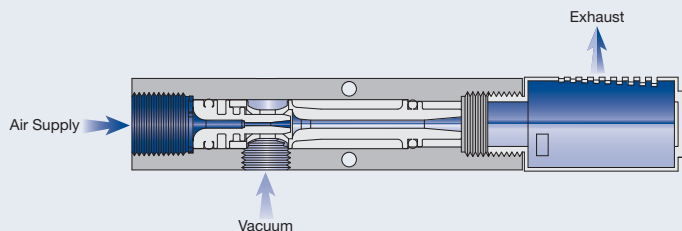
- Customize your pump performance with interchangeable venturi cartridges
- Safe operation – high flow, strong holding force
- High productivity – powerful vacuum up to 28"Hg [948mbar]
- Compact & lightweight – modular design speeds installation
- Efficient – minimal air consumption
- Reliable – operates trouble free:
 - ~ Straight-through design, non-clogging
 - ~ No moving parts to wear or clog
 - ~ No flap valves to stick open
 - ~ No maintenance
 - ~ No downtime

Pump Options:

- Interchangeable venturi cartridges – 11 different performance levels
- Factory installed miniature vacuum switches/sensors for reliable part detection/optional quick disconnects.
- Silencers– ST4 (straight-through) silencer won't clog. STAA4 silencers for ultra quiet operation.
- G port threads for metric machines – an "I" prefix designates products with metric threads
- Choice of operating pressures to meet machine and factory air supply 80 PSI [5.5 BAR] standard, 60 PSI [4.0 BAR] optional.

Principles of Operation:

Vacuum is produced by forcing compressed air through a limiting orifice (nozzle). As the air exits the orifice, it expands, increasing in velocity to supersonic speed before entering the venturi section (diffuser). This creates a vacuum at the vacuum inlet port, located between the nozzle and diffuser. The nozzle and diffuser combine to create a venturi vacuum cartridge.



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.

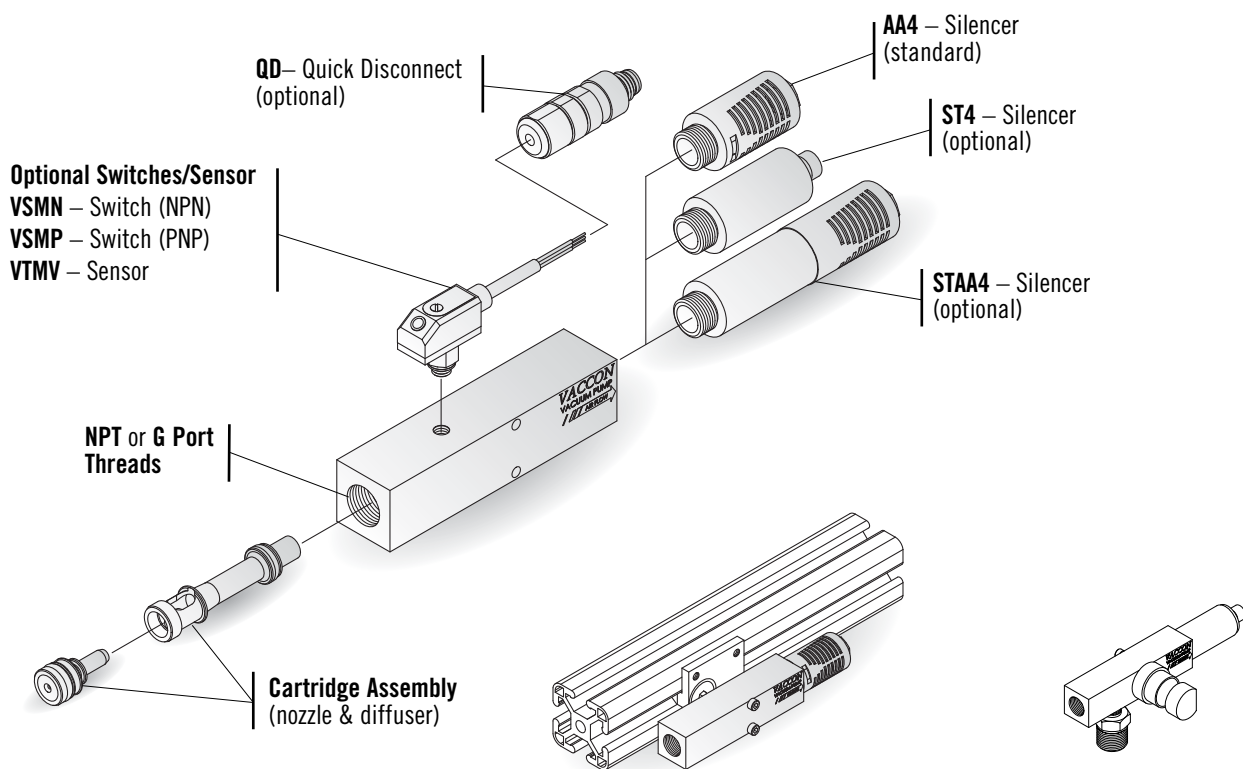
To download a complete set of drawings in 13 different CAD formats, please visit our website at www.vaccon.com

For more information or technical assistance, please call 508-359-7200 or 800-848-8788 or email engineering@vaccon.com

Modular Venturi Vacuum Pumps

VP10- (60, 90, 100, 150) (L, M, H) Fastvac Mid Series Configurations and Options:

All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



VP10 pumps are Fractional and Metric T-Slot compatible. See EOAT Section.

Apple Core Mount available, see page 142.

How to Specify:

VP10 - 60 H - 60 - ST4 -

P/N	Thread
VP10	NPT
I-VP10	G Port

P/N	Max. Flow Level
-60	
-90	
-100	
-150	

P/N	Max. Vac Level
L	10"Hg [339mbar]
M	20"Hg [677mbar]
H	28"Hg [948mbar]

P/N	Operating Pressure
	80 PSI [5.5 Bar] (Std)
-60	60 PSI [4.0 Bar]

P/N	Switch/Sensor
	None (Standard)
VSMN	Switch – NPN
VSMP	Switch – PNP
VTMV	Sensor – 0-5VDC Output
VSMN-QD	Switch – w/Quick Disconnect
VSMP-QD	Switch – w/Quick Disconnect
VTMV-QD	Sensor – w/Quick Disconnect

P/N	Silencer
	AA4 - Closed End (Standard)
ST4	Straight-Through
STAA4	Hybrid

For complete Performance Data, see page 150.

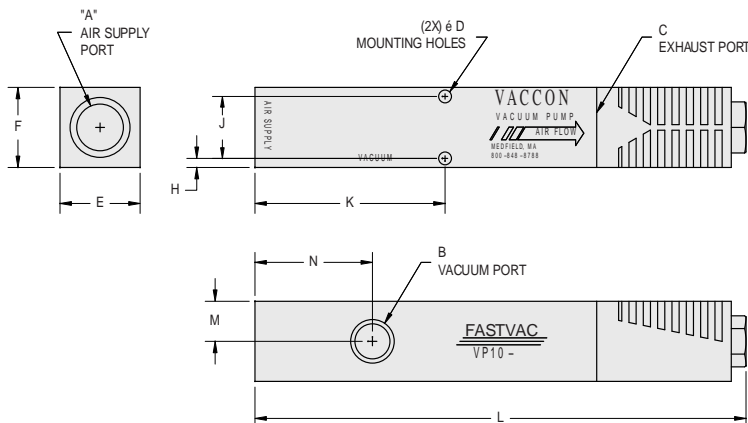
Standard Pump: VP10- (60, 90, 100, 150) (L, M, H)



VP10-100H with AA4 silencer.

Specifications:

Weight: 2.38 oz [67.5g]
Noise Level: 64dB



Model #	Imperial Dimensions (in.)											
VP10 w/AA4	A	B	C	D	E	F	H	J	K	L	M	N
	1/4 NPT F	1/8 NPT F	1/4 NPT F	0.12	0.75	0.75	0.09	0.58	1.78	4.60	0.38	1.10
Model #	Metric Dimensions (mm)											
I-VP10 w/AA4	A	B	C	D	E	F	H	J	K	L	M	N
	G 1/4	G 1/8	G 1/4	3.0	19.1	19.1	2.2	14.7	45.2	116.8	9.5	27.9

VP10 Pump Standard Specifications:

Pump Material: Anodized Aluminum (For silencer material, see pages 233-237)
Cartridge Material: Nylon, Buna-N O-ring (Other materials available - See page 7)
Medium: Filtered (50 Micron) un-lubricated, non-corrosive dry gasses
Operating Temperature: -30°~250° F [-34°~121°C]
Operating Pressure: 80 PSI [5.5 BAR] Standard or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures

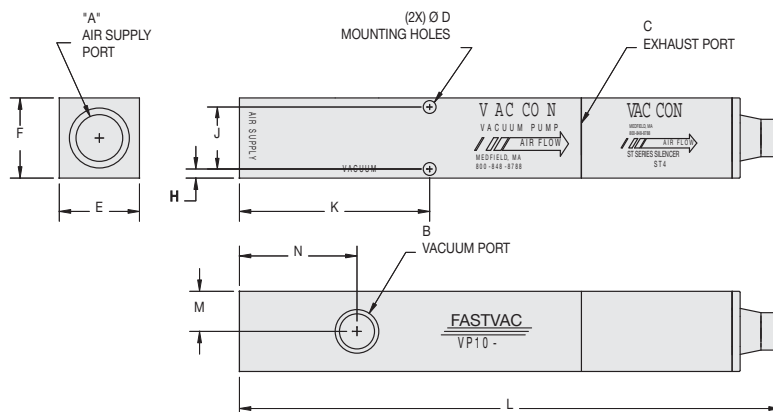
VP10 Operating and Installation Instructions:

Cartridge size: C60 (M, H) and C90 (L, M, H) C100 (L, M, H) and C150 (L, M, H)
Supply Line: 1/4" O.D. [6mm] tube recommended 3/8" O.D. [10mm] tube recommended
Vacuum Line: 1/4" O.D. [6mm] tube recommended 3/8" O.D. [10mm] tube recommended
Vacuum Line Filtration: Typically filters are not required, if desired Vaccon recommends – VF125LPM. See page 282.
Control Valve: 3 way/2 position (faster part release), minimum orifice – 0.125 ID [3mm]
Mounting Holes: Mounting holes accept 4-40 [M3] screws

VP10- (60, 90, 100, 150) (L, M, H) - Optional Silencer: ST4



VP10-90M with ST4 silencer.



Specifications:

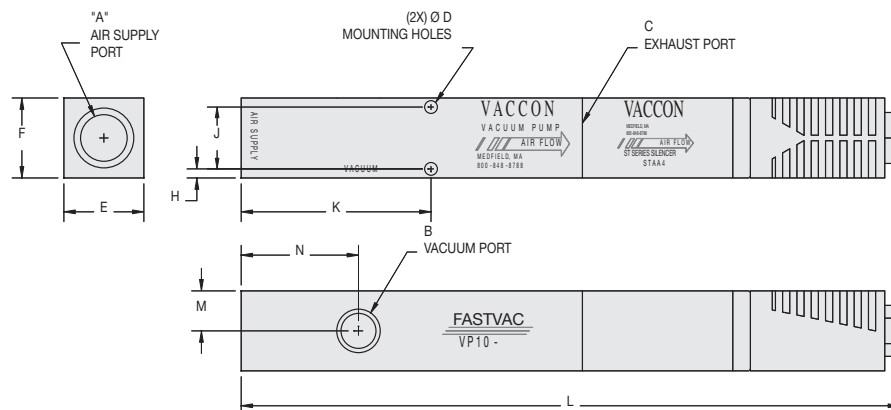
Weight: 2.47 oz [70 g]
Noise Level: 66dB

Model #	Imperial Dimensions (in.)											
VP10 w/ST4	A	B	C	D	E	F	H	J	K	L	M	N
	1/4 NPT F	1/8 NPT F	1/4 NPT F	0.12	0.75	0.75	0.09	0.58	1.78	5.06	0.38	1.10
Model #	Metric Dimensions (mm)											
I-VP10 w/ST4	A	B	C	D	E	F	H	J	K	L	M	N
	G 1/4	G 1/8	G 1/4	3.0	19.1	19.1	2.2	14.7	45.2	128.5	9.5	27.9

VP10- (60, 90, 100, 150) (L, M, H) - Optional Silencer: STAA4



VP10-100H with STAA4 silencer.



Specifications:

Weight: 2.84 oz [80.6 g]
Noise Level: 58dB

Model #	Imperial Dimensions (in.)											
VP10 w/STAA4	A	B	C	D	E	F	H	J	K	L	M	N
	1/4 NPT F	1/8 NPT F	1/4 NPT F	0.12	0.75	0.75	0.09	0.58	1.78	6.17	0.38	1.10
Model #	Metric Dimensions (mm)											
I-VP10 w/STAA4	A	B	C	D	E	F	H	J	K	L	M	N
	G 1/4	G 1/8	G 1/4	3.0	19.1	19.1	2.2	14.7	45.2	156.8	9.5	27.9

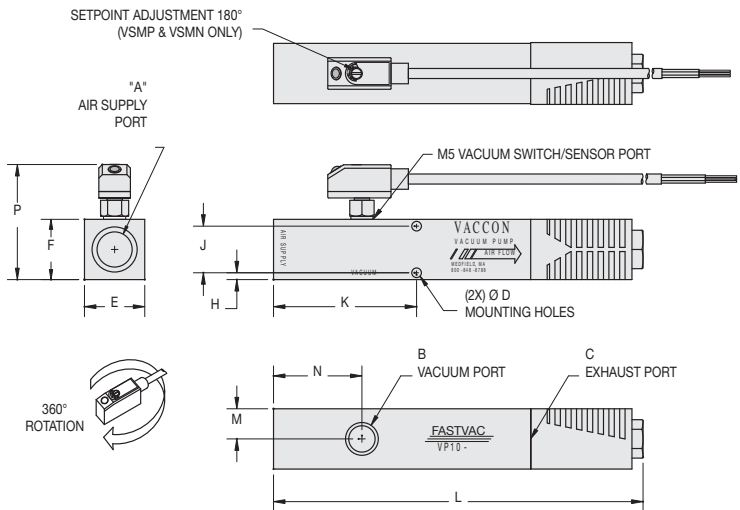
VP10- (60, 90, 100, 150) (L, M, H) - Optional Switch/Sensor: VSMP or VSMN – VTMV



VP10 with VSMP Switch. Optional QD-Quick Disconnect available - See page 323.

Specifications:

Weight: 3.33 oz [94.3g]
Noise Level: 64dB



Model #	Imperial Dimensions (in.)												
VP10 w/Sensor or Switch	A	B	C	D	E	F	H	J	K	L	M	N	O
	1/4 NPT F	1/8 NPT F	1/4 NPT F	0.12	0.75	0.75	0.09	0.58	1.78	4.60	0.38	1.10	1.44
Model #	Metric Dimensions (mm)												
I-VP10 w/Sensor or Switch	A	B	C	D	E	F	H	J	K	L	M	N	O
	G 1/4	G 1/8	G 1/4	3.0	19.1	19.1	2.2	14.7	45.2	116.8	9.5	27.9	36.6

