

# High Vacuum Venturi Pump up to 29.5"Hg with Silencer

## HighVac Series: HVP 100, 200, 300



*HVP-100 degassing viscous liquids such as silicone and other mold compounds*



HVP Series

### Ideal Applications:

- Process control
- Vessel evacuation
- HVAC applications
- Degassing

### Features/Benefits:

- High performance – powerful vacuum up to 29.5"Hg [999mbar]
- Fast response time – no delay due to long plumbing lines; mounts in-line and installs close to vacuum point
- Efficient minimal air consumption
- Compact, lightweight and modular – easy to install
- Safe operation – no electricity needed at the pump
- Reliable, trouble-free operation
  - ~ No moving parts to wear
  - ~ No flap valves to stick open
  - ~ No maintenance
  - ~ No downtime

### Standard Pump:

The HighVac Series of air-powered venturi vacuum pumps generate vacuum levels up to 29.5" Hg [999mbar] and offer a wide range of vacuum flow rates.

The high vacuum level and compact size of the HVP pump allows you to incorporate smaller and more efficient components in your design. Often used to replace expensive, noisy, heat generating, electric pumps, HVP pumps are quiet and maintenance free, ideal for small shops, labs and recharging HVAC systems.

### Pump Options:

- Factory-installed miniature sensors or switches to provide electrical signal for vacuum achieved, part present. Will interface with PLC's and computerized control systems.

**Please note:** Vacuum Level = The magnitude of suction created by the vacuum pump. Vacuum level is effected by elevation and barometric pressure. For each 1,000 feet of elevation, the vacuum level that the pump can acheive decreases by approximately 1"Hg [33.9mbar].

### 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.

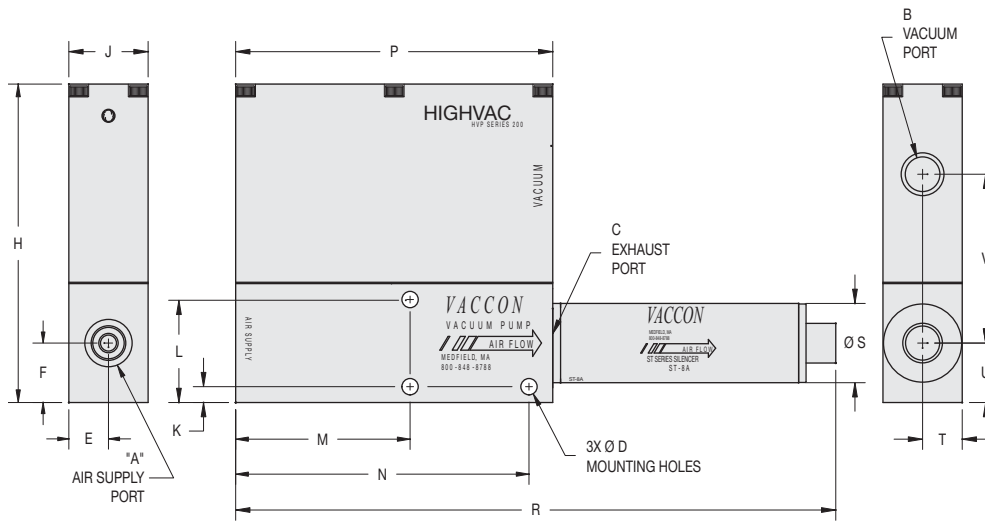
To download a complete set of drawings in 13 different CAD formats, please visit our website at [www.vaccon.com](http://www.vaccon.com)

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

# HighVac Series Vacuum Pumps

## HVP HighVac Series Configurations and Options:

Drawing below is representative of all HVP pumps.



**On-line Configurator and CAD Drawings @ [www.vaccon.com](http://www.vaccon.com)**

New powerful design tool saves you time by configuring the pump you need on-line. When complete, simply download the CAD drawing in any one of 13 different CAD formats and insert it right into your design.

**Get the pump you need, in the format you like!**



**HVP-100**

**Specifications:**

**Weight** 9oz [255g]  
**Noise Level** 71 dB



**HVP-200**

**Specifications:**

**Weight** 1 lb 11 oz [765g]  
**Noise Level** 74 dB



**HVP-300**

**Specifications:**

**Weight** 2 lb [907g]  
**Noise Level** 79 dB

Model #	Imperial Dimensions (in.)														
	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S
HVP-100	1/4 NPTF	1/8 NPTF	1/4 NPTF	0.12	0.38	0.38	2.28	0.75	0.09	0.67	1.78	N/A	3.20	5.06	0.75
HVP-200	1/4 NPTF	1/4 NPTF	1/2 NPTF	0.21	0.50	0.75	4.02	1.00	0.20	N/A	2.20	3.70	4.00	7.57	1.00
HVP-300	3/8 NPTF	1/4 NPTF	1/2 NPTF	0.21	0.50	0.75	4.02	1.00	0.20	N/A	2.50	4.00	5.00	9.81	1.25

### HVP Pump Standard Specifications:

- Pump Material:** Anodized Aluminum (For silencer material, see Silencer section – page 235).
- Cartridge Material:** Nylon, Buna-N (Other materials available, see page 7)
- Medium:** Filtered (50 Micron) un-lubricated, noncorrosive dry gases
- 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

### HVP Pump Installation Instructions:

- Vacuum Line & Supply Line – HVP100/200:** 3/8" O.D. [10mm] tube recommended
- Vacuum Line Filtration – HVP100/200:** Typically filters are not required, if desired Vaccon recommends – VF250. See page 282.
- Vacuum Line & Supply Line – HVP300:** 5/8" O.D. [16mm] tube recommended
- Vacuum Line Filtration – HVP300:** Typically filters are not required, if desired Vaccon recommends – VF375. See page 282.
- Mounting Holes:** HVP-100 = 4-40 [M3], HVP-200/300 = #10-32 [M5] screws

## HVP Series - Performance Data

Model #	Air Consumption SCFM	Imperial – Vacuum Flow (SCFM) vs. Vacuum Level ("Hg)										
		0"Hg	3"Hg	6"Hg	9"Hg	12"Hg	15"Hg	18"Hg	21"Hg	24"Hg	27"Hg	29.5"Hg
HVP-100	4.90	1.30	1.20	1.10	1.00	0.90	0.90	0.90	0.80	0.60	0.30	0.00
HVP-200	8.60	3.45	3.25	3.05	2.75	2.45	2.05	1.90	1.60	1.30	0.90	0.00
HVP-300	22.00	6.00	5.10	4.70	4.40	4.10	3.60	3.00	2.60	1.80	0.90	0.00
Model #		Evacuation Time in Seconds based on 1 Cubic Foot Volume/"Hg										
		0"Hg	3"Hg	6"Hg	9"Hg	12"Hg	15"Hg	18"Hg	21"Hg	24"Hg	27"Hg	29.5"Hg
HVP-100		0.00	6.50	12.30	18.90	32.50	40.00	52.50	72.50	98.00	135.50	281.30
HVP-200		0.00	2.30	3.80	6.50	10.20	14.10	20.00	29.50	44.00	67.50	125.00
HVP-300		0.00	1.20	2.10	3.40	5.20	7.70	11.50	16.30	24.00	39.50	98.10

**Note 1:** Standard operating pressure for Vaccon pumps is 80 PSI [5.5BAR]. Pumps can be factory modified to run at other operating pressures i.e. 60 PSI [4 BAR] etc. The values shown in the performance chart will remain the same for all operating pressures.

**Note 2:** Evacuation speed is linear with volume, a 2 cu. ft. volume will take twice as long to evacuate as a one cu. ft. volume.

Model #	Air Consumption L/min	Metric – Vacuum Flow (L/min) vs. Vacuum Level (mbar)										
		0 mbar	102 mbar	203 mbar	305 mbar	406 mbar	508mbar	609 mbar	711 mbar	813 mbar	914 mbar	999 mbar
HVP-100	138.8	36.8	34.0	31.1	28.3	25.5	25.5	25.5	22.7	17.0	8.5	0.0
HVP-200	243.5	97.7	92.0	86.4	77.9	69.4	58.0	53.8	45.3	36.8	25.5	0.0
HVP-300	623.0	169.9	144.4	133.1	124.6	116.1	101.9	85.0	73.6	51.0	25.5	0.0
Model #		Evacuation Time in Seconds based on 1 Liter Volume/mbar										
		0 mbar	102 mbar	203 mbar	305 mbar	339 mbar	508mbar	609 mbar	711 mbar	813 mbar	914 mbar	999 mbar
HVP-100		0.00	0.2	0.4	0.7	1.1	1.4	1.9	2.6	3.5	4.8	9.9
HVP-200		0.00	0.1	0.1	0.2	0.4	0.5	0.7	1.0	1.6	2.4	4.4
HVP-300		0.00	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.8	1.4	3.5

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**Note 2:** Evacuation speed is linear with volume, a 2 cu. ft. volume will take twice as long to evacuate as a one cu. ft. volume.

