

Max-size Venturi Vacuum Pump with Silencer

Fastvac Max Series: VP80-250



VP80-250H

Standard Pump:

The VP80-250 Fastvac Max Series air-powered venturi vacuum pumps provide high vacuum flow rates for the rapid evacuation of large volumes of air or for overcoming leakage in order to sustain high vacuum levels while handling porous materials.

Highly efficient, capable of reaching 28"Hg [948mbar], the VP80's are dirt tolerant and include a silencer for quiet operation. Unlike the Mid series pumps that use interchangeable cartridge assemblies, the Max series pumps (VP80 & VP90's) use a non-removable press-fit venturi assembly.

Performance Level Designations:

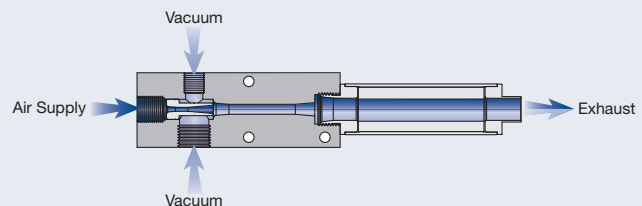
"L" 0-10"Hg [0 to 339mbar] for low vacuum/high flow applications

"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

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.



Ideal Applications:

- Rapid evacuation of large volumes of air
- Pick and place medium to large size objects
- End-of-Arm Tooling/Robotics
- Vessel evacuation – molds/tanks/bottles/drums
- Packaging – bag/box/carton folding and handling
- Vacuum clamping/holding – fixtures, veneers

Features/Benefits:

- High performance – powerful vacuum up to 28"Hg [948mbar]
- Compact & lightweight, rugged body construction
- Fast response – mounts close to vacuum point
- Efficient – minimal air consumption
- Safe operation
 - ~ No electricity needed at the pump
 - ~ High flow overcomes leakage – maintains a strong holding force
- 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:

- Vacuum gauge
- Silencers: ST-8B with 90° elbow attachment for compact space requirements or ST-8A without elbow for ease of mounting, ST (straight-through silencers) allow dirt to pass through and won't clog, FA-51-1/2 silencer with elbow for high flow applications
- 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

Eliminate the Guesswork: Contact Us!

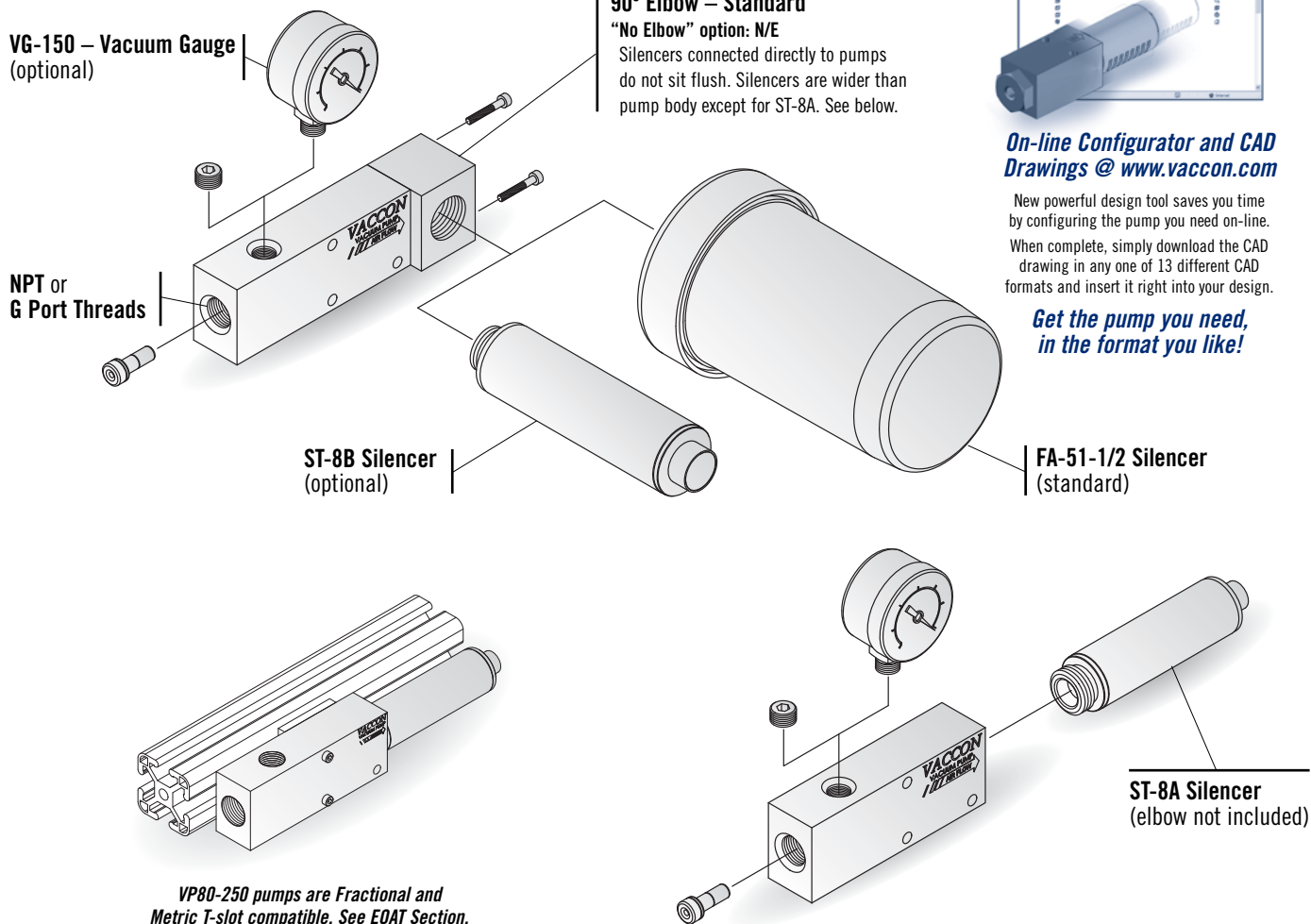
Vacuum technology isn't an exact science. To ensure proper product selection, Vaccon offers free application engineering assistance, a 30 Day Test & Evaluation Program or you can send sample products to our in-house test facility and we will test and size a pump for you.

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

VP80-250 (L, M, H) Series Fastvac Max 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.



On-line Configurator and CAD Drawings @ 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!

How to Specify:

VP80-250 - H - 60 - ST8B

P/N	Thread
VP80-250	NPT
I-VP80-250	G-Port

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

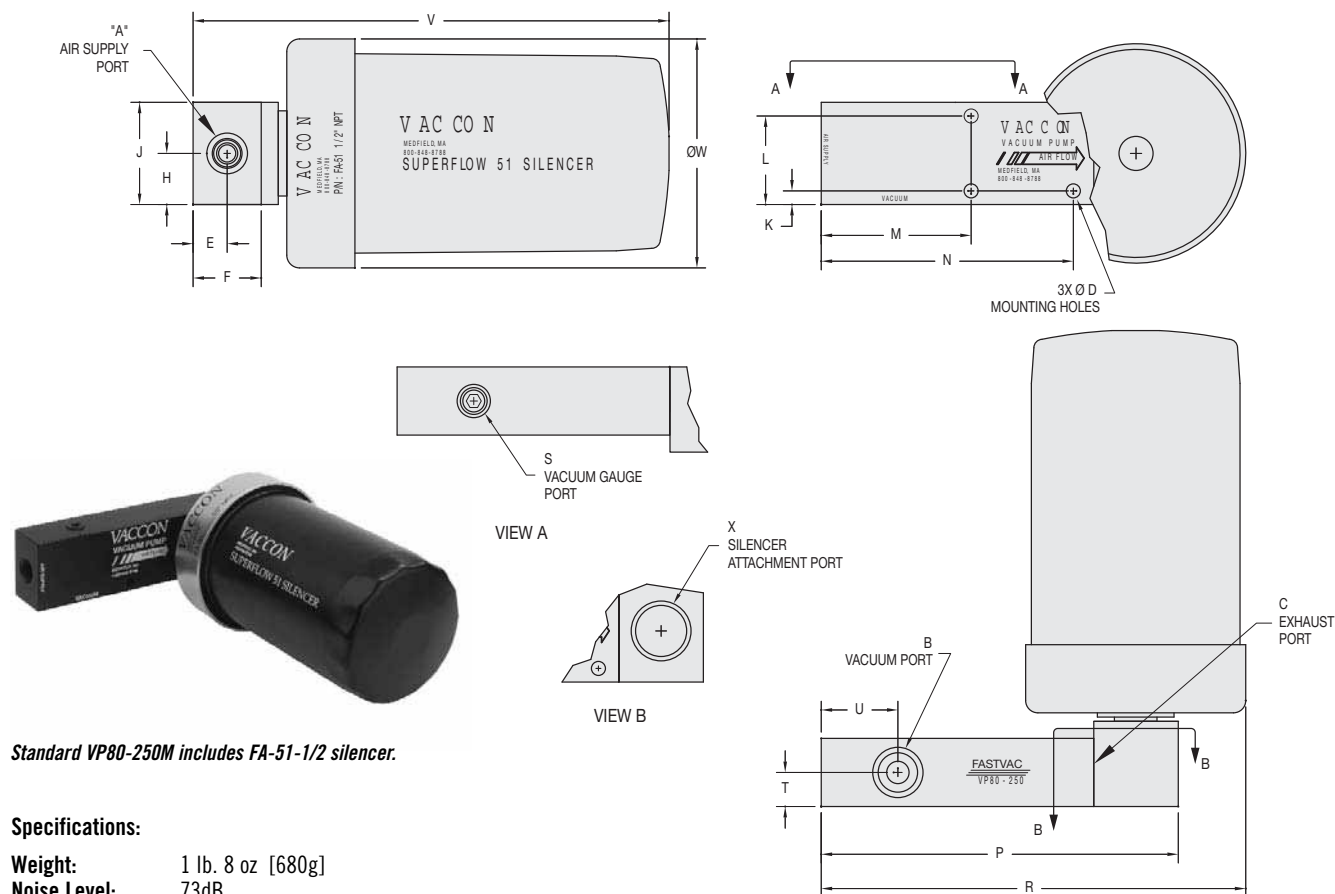
P/N	Vacuum Gauge
VG-150	Vaccon does not recommend shipping gauges attached to pumps. Please specify as a separate line item.

P/N	Silencer
	FA-51-1/2 - High Flow - Standard
N/E	FA-51-1/2 - No Elbow
ST-8B	Straight-Through With Elbow
ST-8A	Straight-Through No Elbow

P/N	Operating Pressure
	80 PSI [5.5 Bar] (Standard)
-60	60 PSI [4.1 Bar]

For complete Performance Data, see page 153.

Standard Pump: VP80-250 (L, M, H)



Standard VP80-250M includes FA-51-1/2 silencer.

Specifications:

Weight: 1 lb. 8 oz [680g]
Noise Level: 73dB

Model #	Imperial Dimensions (in.)																			
VP80-250	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X
	1/4 NPT F	3/8 NPT F	1/2 NPT F	0.21	0.50	1.0	0.75	1.50	0.20	1.30	2.20	3.70	5.24	6.23	1/8 NPT F	0.50	1.13	7.00	3.36	1/2 NPT F
Model #	Metric Dimensions (mm)																			
I-VP80-250	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X
	G 1/4	G 3/8	G 1/2	5.2	12.7	25.4	19.1	38.1	5.1	33.0	55.9	94.0	133.1	158.2	G 1/8	12.7	28.6	177.8	85.3	G 1/2

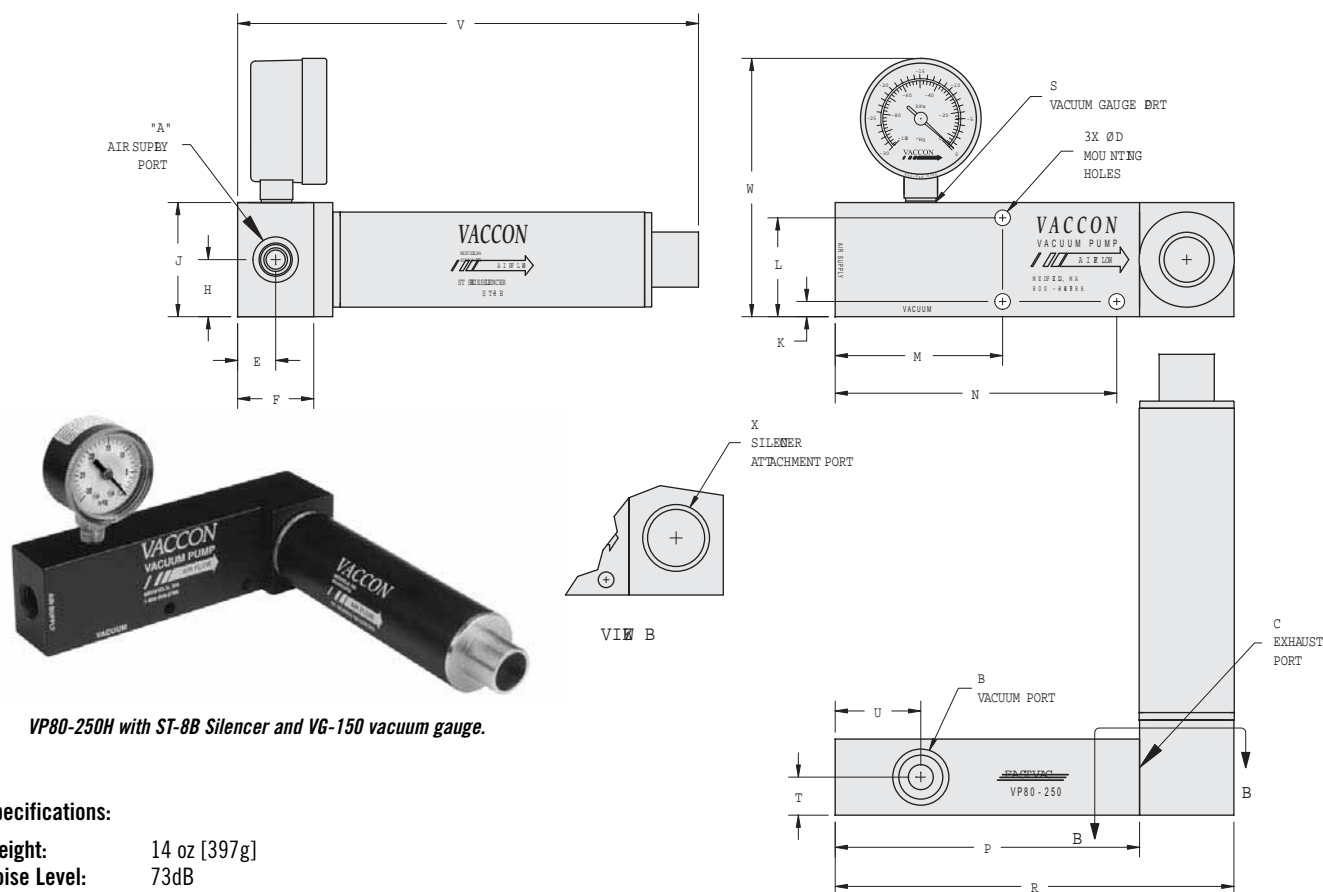
VP80-250 Pump Standard Specifications:

Pump Material: Anodized Aluminum (For silencer material, see pages 239-239)
Medium: Filtered (100 Micron) un-lubricated, non-corrosive dry gases
Operating Temperature: -100° ~ +400° F [-73° ~ +204°C]
Operating Pressure: 80 PSI [5.5 BAR] or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures

VP80-250 Operating and Installation Instructions:

Supply Line: Minimum recommended – 3/8" O.D. (10mm) Preferred – 1/2" [12mm] OD tubing
Vacuum Line: Minimum recommended – 3/8" O.D. (10mm) Preferred – 1/2" [12mm] OD tubing
Vacuum Line Filtration: Typically filters are not required, if desired Vaccon recommends – VF375F. See page 282.
Mounting: Mounting holes accept #10-32 or M5 screws

VP80-250 (L, M, H) Pump with optional ST-8B Silencer



Specifications:

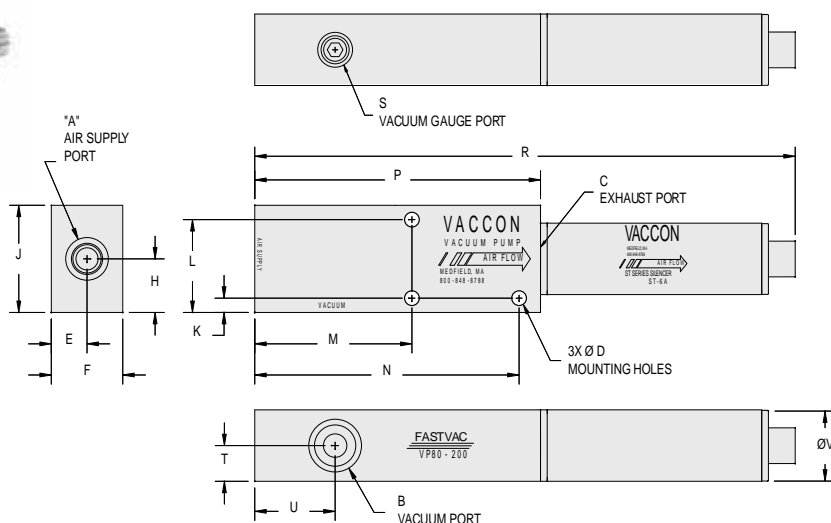
Weight: 14 oz [397g]
Noise Level: 73dB

Model #	Imperial Dimensions (in.)																			
VP80-250-ST8B	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X
	1/4 NPT F	3/8 NPT F	1/2 NPT F	0.21	0.50	1.00	0.75	1.50	0.20	1.30	2.20	3.70	4.00	5.24	1/8 NPT F	0.50	1.13	6.06	3.40	1/2 NPT F
Model #	Metric Dimensions (mm)																			
I-VP80-250-ST8B	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X
	G 1/4	G 3/8	G 1/2	5.2	12.7	25.4	19.1	38.1	5.1	33.0	55.9	94.0	101.6	133.1	G 1/8	12.7	28.6	153.8	86.2	G 1/2

VP80-250 (L, M, H) Pump - Optional Silencer: ST-8A



VP80-250H with ST-8A silencer.



Specifications:

Weight: 10 oz [384g]
Noise Level: 75 dB

Model #	Imperial Dimensions (in.)																	
VP80-250 w/ST8A	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V
	1/4 NPT F	3/8 NPT F	1/2 NPT F	0.21	0.50	1.00	0.75	1.50	0.20	1.30	2.20	3.70	4.00	7.57	1/8 NPT F	0.50	1.13	1.00
Model #	Metric Dimensions (mm)																	
I-VP80-250 w/ST8A	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V
	G 1/4	G 3/8	G 1/2	5.2	12.7	25.4	19.1	38.1	5.1	33.0	55.9	94.0	101.6	192.3	G 1/8	12.7	28.6	25.4

