

# Max-size Venturi Vacuum Pump with Silencer

## Fastvac Max Series: VP80-200



*VP80-200H transfers boxes for palletizing operation*



*VP80-200H*

### Standard Pump:

The VP80-200 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.

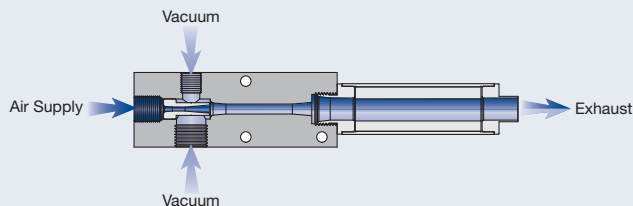
Highly efficient, capable of reaching 28"Hg [948mbar], the VP80's are also dirt tolerant and include a straight-through silencer for quiet operation. Unlike the Mid Series pumps that use interchangeable cartridge assemblies, the Max Series pumps (VP80 & VP90's) use a non-removable press-fit venturi assembly.

### 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.



### 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)

### Ideal Applications:

- 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
- Vacuum filling/bottling operations

### 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: STAA6 for ultra-quiet operation, FA-51-3/8 for high flow applications
- G port threads for metric machines – products with an "I" prefix designates 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

# Modular Venturi Vacuum Pumps

## VP80-200 (L, M, H) Fastvac Max Series Configurations and Options:

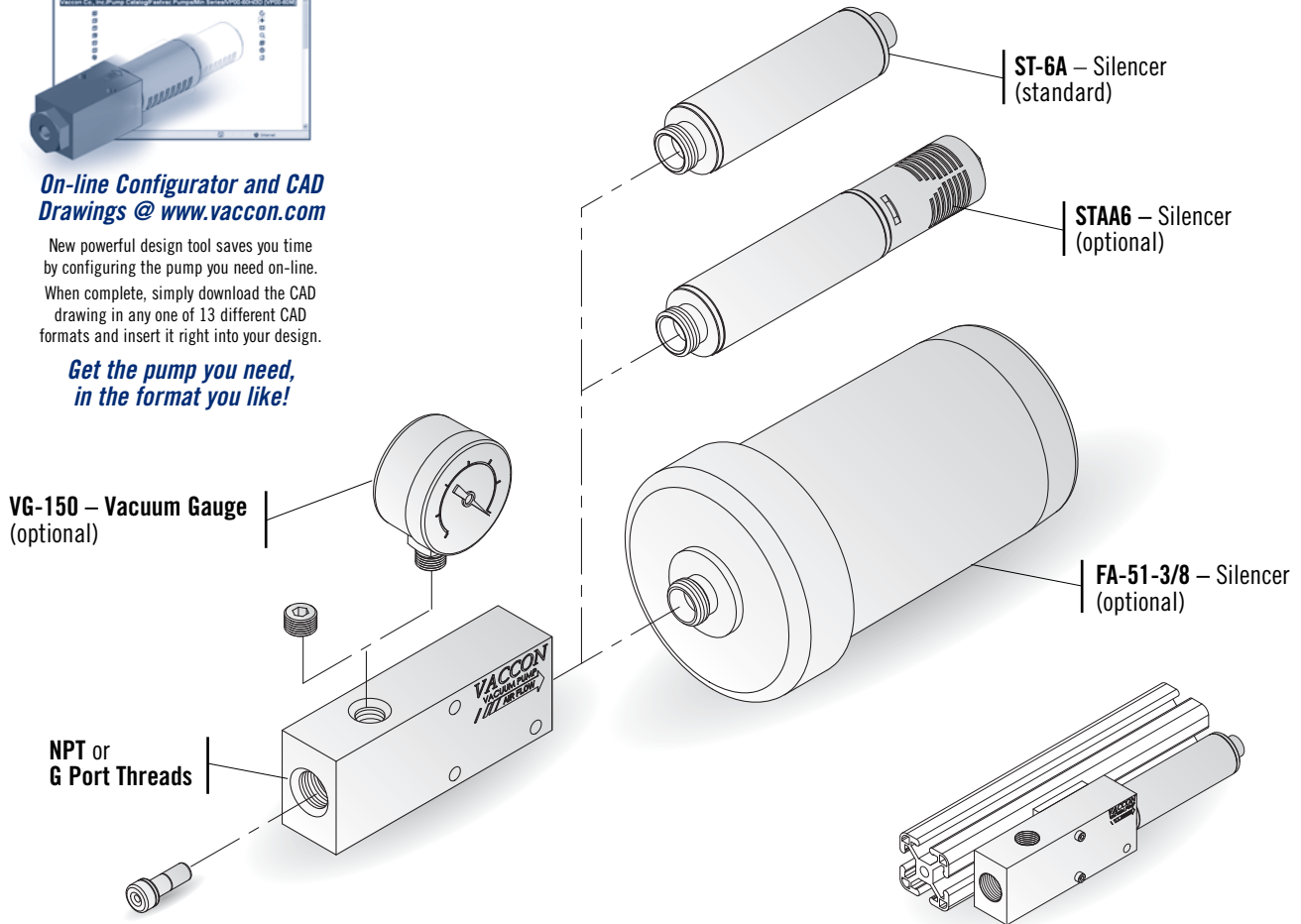
All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



### On-line Configurator and CAD Drawings @ [www.vaccon.com](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!**



*VP80-200 pumps are Fractional and Metric T-slot compatible. See EOAT Section.*

### How to Specify:

**VP80-200 - H - -**

P/N	Thread
VP80-200	NPT
I-VP80-200	G-Port

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

P/N	Silencer
	ST-6A Straight-Through (Standard)
STAA6	Hybrid
FA-51-3/8	High Flow

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

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

For complete Performance Data, see page 153.

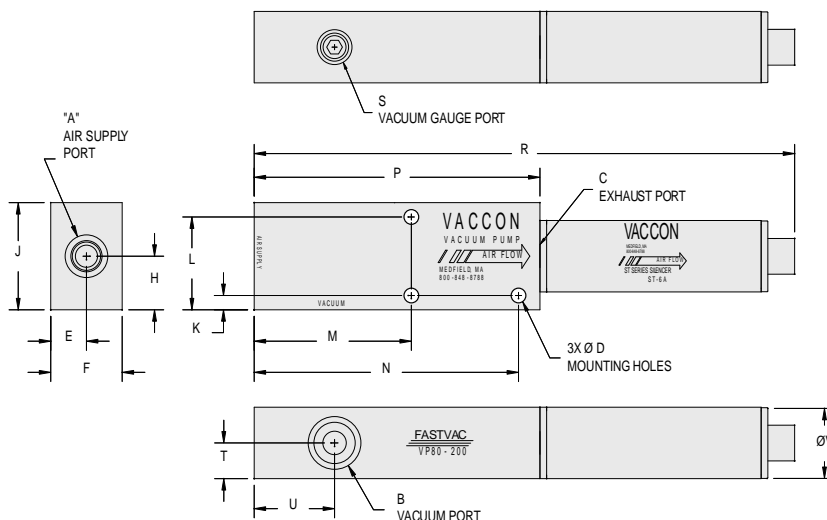
## Standard Pump: VP80-200 (L, M, H)



Standard VP80-200M with ST-6A silencer.

**Specifications:**

**Weight** 10.2 oz [290 g]  
**Noise Level** 72dB



Model #	Imperial Dimensions (in.)																		
VP80-200	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	3/8 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	0.98	
Model #	Metric Dimensions (mm)																		
I-VP80-200	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 3/8	5.2	12.7	25.4	19.1	38.1	5.1	33.0	55.9	94.0	101.6	192.2	G 1/8	12.7	28.6	24.9	

### VP80-200 Pump Standard Specifications:

- Pump Body Material:** Anodized Aluminum (For silencer material, see pages 235-239)
- 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

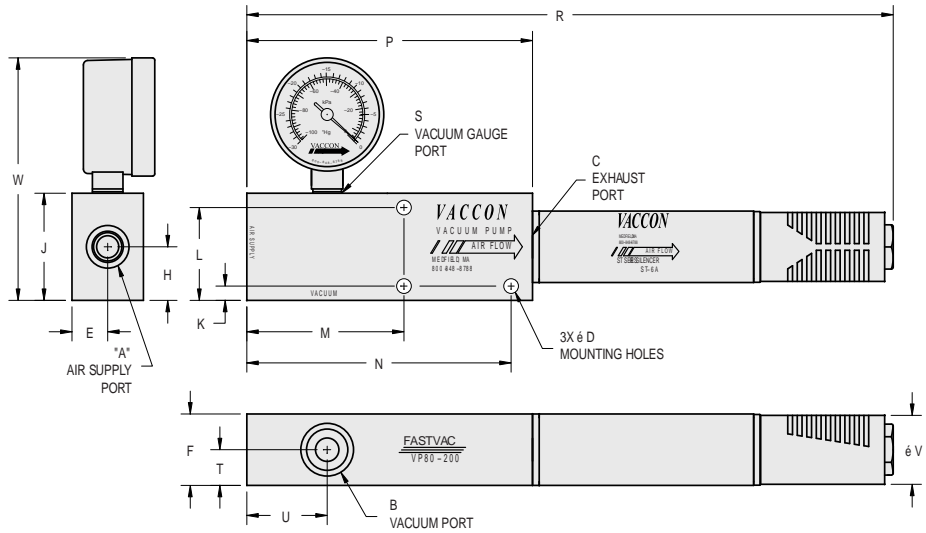
### VP80-200 Operating and Installation Instructions:

- Supply Line:** 3/8" O.D. [10mm] tube recommended
- Vacuum Line:** 3/8" O.D. [10mm] tube recommended
- 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

## VP80-200 (L, M, H) Pump with optional STAA6 Silencer and VG-150 vacuum gauge



VP80-200H with optional STAA6 silencer and VG-150 vacuum gauge.



**Specifications:**

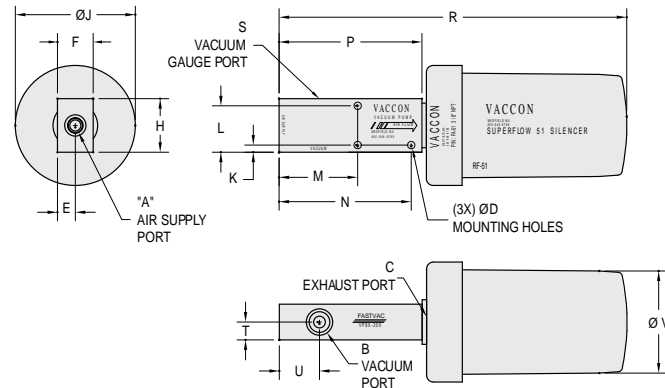
**Weight:** 10.5 oz [298g]  
**Noise Level:** 65dB

Model #	Imperial Dimensions (in.)																		
VP80-200 w/STAA6	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W
	1/4 NPT F	3/8 NPT F	3/8 NPT F	0.21	0.50	1.00	0.75	1.50	0.20	1.30	2.20	3.70	4.00	9.05	1/8 NPT F	0.50	1.13	1.00	3.40
Model #	Metric Dimensions (mm)																		
I-VP80-200 w/STAA6	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W
	G 1/4	G 3/8	G 3/8	5.2	12.7	25.4	19.1	38.1	5.1	33.0	55.9	94.0	101.6	229.9	G 1/8	12.7	28.6	25.4	86.2

## VP80-200 (L, M, H) Pump with Optional FA-51-3/8 Silencer and VG-150 Vacuum Gauge



VP80-200H with FA-51-3/8 optional silencer and VG-150 Vacuum Gauge.



**Specifications:**

**Weight:** 1 lb. 5 oz [595g]  
**Noise Level:** 72 dB

Model #	Imperial Dimensions (in.)																		
VP80-200 w/FA-51-3/8	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	3/8 NPT F	0.21	0.50	1.00	1.50	3.36	0.20	1.30	2.20	3.70	4.00	9.74	1/8 NPT F	0.50	1.13	2.86	
Model #	Metric Dimensions (mm)																		
I-VP80-200 w/FA-51-3/8	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 3/8	5.2	12.7	25.4	38.1	85.3	5.1	33.0	55.9	94.0	101.6	247.3	G 1/8	12.7	28.6	72.6	