

Max Series Venturi Vacuum Pump with Pneumatic Blow-off and Silencer

Fastbreak Max Series: VP8X & VP8X-ADJ



Standard Pump:

VP8X & VP8X-ADJ air-powered venturi vacuum pumps are trusted for accurate part placement and rapid part release. The reliable Fastbreak Max Series provides both vacuum and blow-off in one pump, using only one compressed air line. No electricity required.

The integrated pneumatic high-speed blow off on the VP8X provides a fixed-duration blow off, based on the volume of the housing. With the VP8X-ADJ adjustable vacuum pump, you can control the intensity of the blow-off using one fingertip adjustment knob. (Customer-supplied directional control valve with exhaust required.)

For applications where you need a solenoid operated pump with a pneumatic blow-off, please see VP8XV on page 113.

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

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

Ideal Applications:

Pick and place applications requiring accurate part placement and rapid part release:

- ~ Palletizing
- ~ Packaging machines
- ~ High speed labeling machines
- ~ Sheet feeders
- ~ Robotic end effectors
- ~ Automated assembly

Features/Benefits:

- Fast Response – compact, lightweight, and installs close to vacuum point
- Trouble free operation:
 - ~ Straight-through design, non-clogging
 - ~ No moving parts to wear
 - ~ No flap valves to stick open
 - ~ Automatically cleans vacuum lines
 - ~ No downtime
- High productivity – rapid part release, cycle rates up to 900/min
- Modular design – add vacuum sensors and solenoid valves to create a complete vacuum system
- Multiple functions from just one PLC output – requires fewer outputs, less costly, easy to program
- Reliable part detection – factory installed miniature vacuum switches or sensors

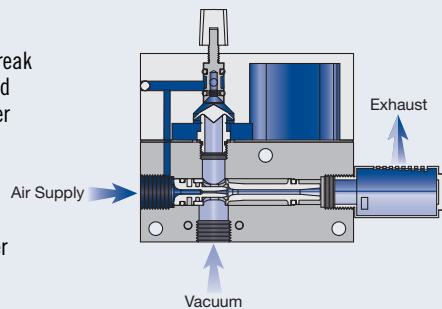
Pump Options:

- ADJ version allows the user to set the intensity of the blow-off from no blow-off to full blow-off
- Factory-installed miniature vacuum switches or sensors for reliable part detection
- FA-51-3/8 silencer for high flow applications, STAA6 hybrid silencer 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 [5.5BAR] standard, 60 PSI [4.0 BAR] optional

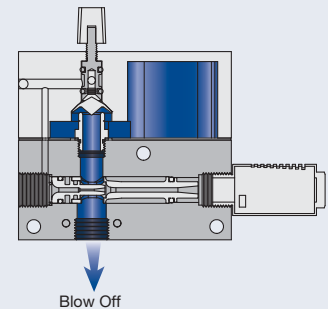
Principles of Operation: VP8X & VP8X-ADJ

Fastbreak pumps provide both suction and blow-off with a single supply of compressed air controlled by a solenoid valve.

Utilizing quick exhaust valve technology, Fastbreak pumps store compressed air in the upper chamber while simultaneously generating vacuum. The quick exhaust diaphragm seals the compressed air chamber from the suction line.



When the part is to be released, the solenoid valve* is de-energized. The vacuum stops and the rapid drop in pressure shifts the quick exhaust diaphragm into the up position allowing the store compressed air to vent into the vacuum line.



When handling small and lightweight parts, choose the adjustable version (-ADJ) shown above to control the blow-off intensity.

***Note:** The (customer supplied) solenoid valve controlling the compressed air to the Fastbreak pump must vent to atmosphere for the quick exhaust valve to actuate properly.

VP8X and VP8X-ADJ Standard Pump Specifications:

Body Material:	Anodized Aluminum, Nebar, Brass, Buna-N, Vinyl, Nylon, Alloy Steel (Buna-N on ADJ pumps only) (For silencer material, see pages 235-239)
Medium:	Filtered (100 Micron) un-lubricated, non-corrosive dry gases
Operating Temperature:	+32°~125° F [0°~52°C]
Operating Pressure:	80 PSI [5.5 BAR] or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures
Cycle Rates:	Up to 900/min
Blow-off Response Time:	Instantaneous
Orientation:	Any position
Blow-off Duration:	100 milliseconds (based on system design)

VP8X and VP8X-ADJ Operating and Installation Instructions:

Supply Line:	3/8" O.D. [10mm] tube recommended, not to exceed 3' [1M]
Vacuum Line:	3/8" O.D. [10mm] tube recommended, not to exceed 3' [1M]
Control Valve:	3 way/2 position, minimum orifice - 0.156" diameter [4mm]
Vacuum Line Filtration:	Typically filters are not required, if desired Vaccon recommends – VF375F. See page 282.
Mounting Holes:	Mounting holes accept #10-32 [M5] screws

VP8X & VP8X-ADJ Fastbreak Max Series Configurations and Options:

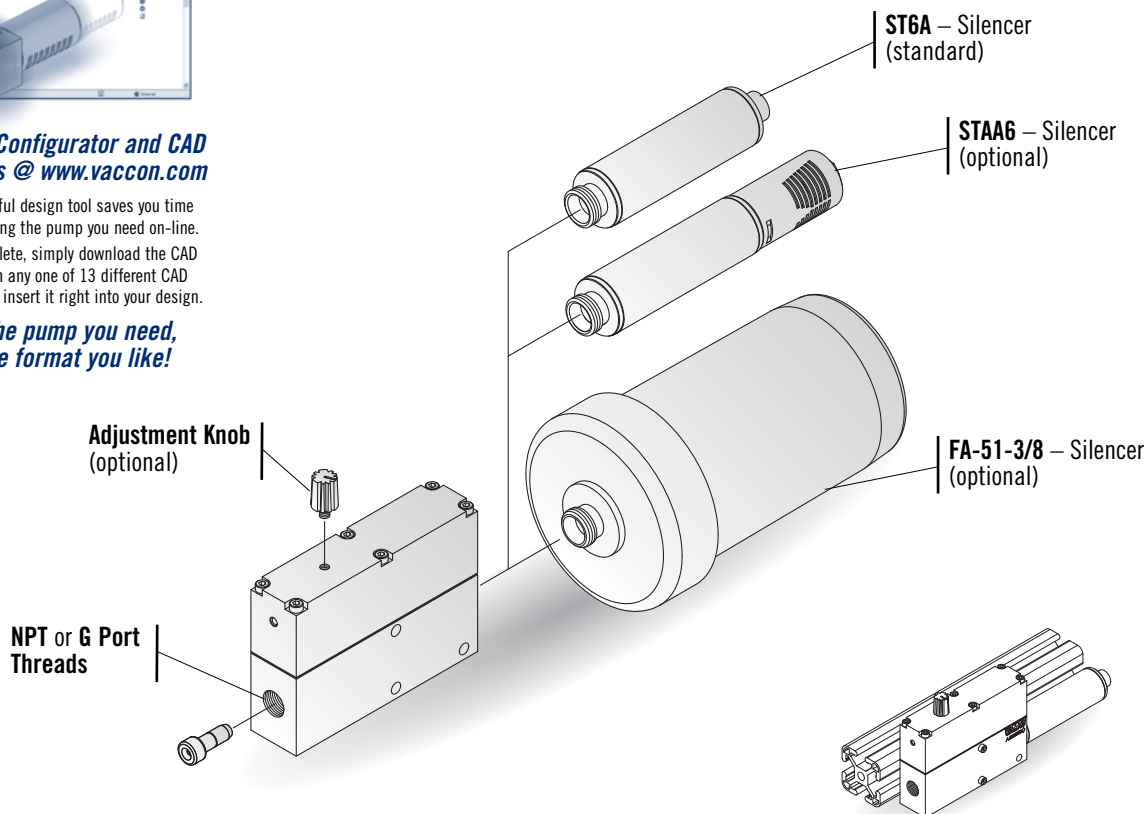
All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



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!*



VP8X pumps are Fractional and Metric T-slot compatible. See EOAT Section.

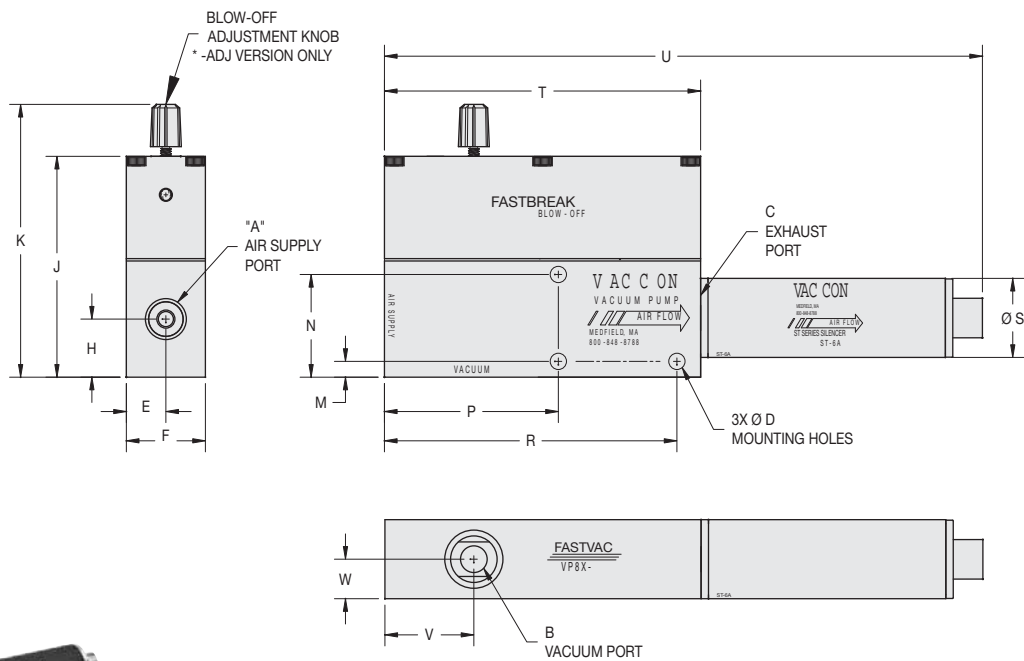
How to Specify:

VP8X-200 - H - 60 - ADJ -			
P/N	Thread	P/N	Silencer
VP8X-200	NPT	ST6A	Straight-through (Std)
I-VP8X-200	G-Port	STAA6	Hybrid
		FA-51-3/8	High Flow
P/N	Max. Vac Level	P/N	Adjustable Blow-off
L	10"Hg [339 mbar]	Not Adjustable	(Standard)
M	20"Hg [677 mbar]	ADJ	Adjustable Blow-off
H	28"Hg [948 mbar]		
P/N	Operating Pressure		
60	80 PSI [5.5 Bar] (Standard)		
	60 PSI [4.1 Bar]		

For complete Performance Data, see page 153.

Modular Venturi Vacuum Pumps with Pneumatic Blow-Off

Standard Pump: VP8X-200 (L, M or H) (-ADJ)



VP8X-200H-ADJ with ST6A Silencer



VP8X-200M with ST6A Silencer

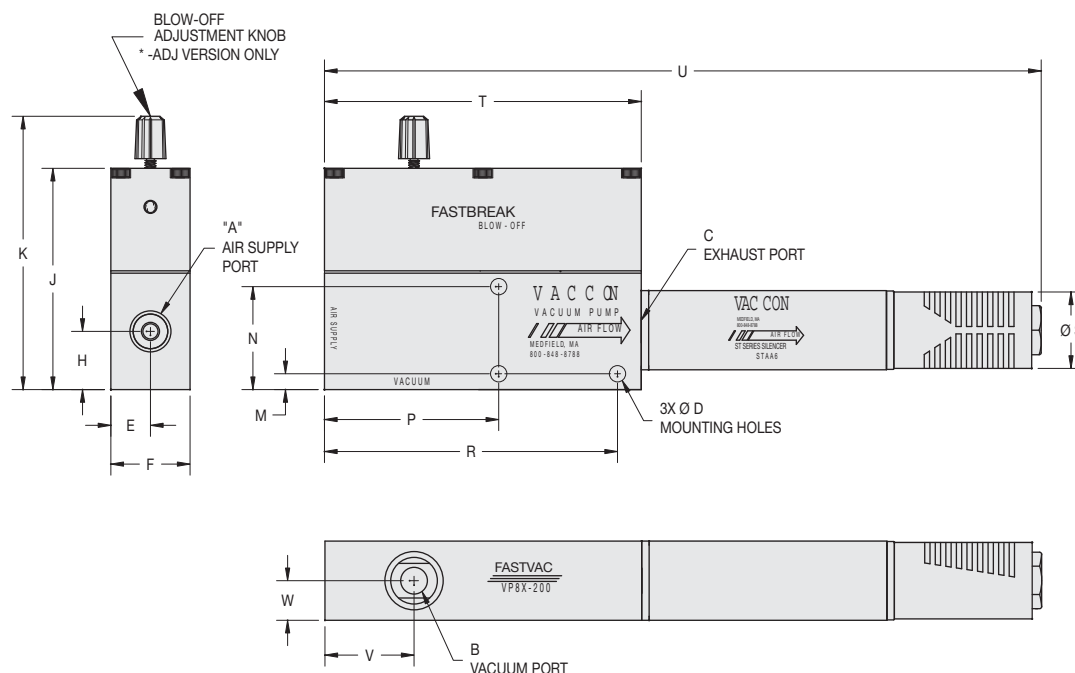
Specifications:

Weight 15 oz [425g]
Noise Level 72 dB

Model #	Imperial Dimensions (in.)																		
	A	B	C	D	E	F	H	J	K*	L	M	N	P	R	S	T	U	V	W
VP8X-200 (ADJ) w/ST6A	1/4 NPT F	3/8 NPT F	3/8 NPT F	0.21	0.50	1.00	0.75	2.79	3.45	N/A	0.20	1.30	2.20	3.70	1.00	4.00	7.57	1.13	0.50
Model #	Metric Dimensions (mm)																		
	A	B	C	D	E	F	H	J	K*	L	M	N	P	R	S	T	U	V	W
I-VP8X-200 (ADJ) w/ST6A	G 1/4	G 3/8	G 3/8	5.2	12.7	25.4	19.1	71.0	87.6	N/A	5.1	33.0	55.9	94.0	25.4	101.6	192.2	28.6	12.7

*-ADJ Version Only

VP8X-200 (L, M or H) (-ADJ) Pump – Optional Silencer: STAA6



Specifications:

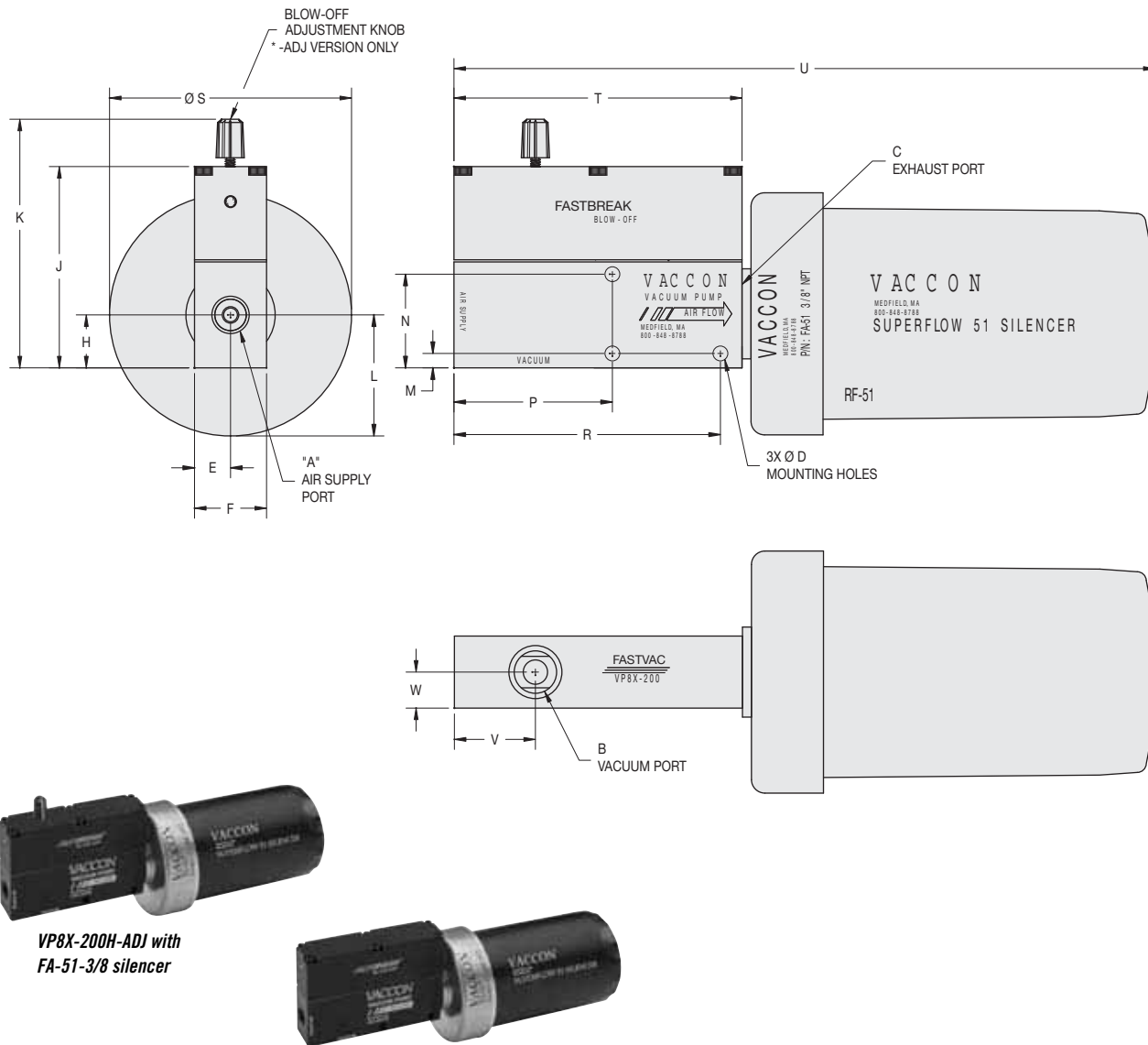
Weight 15.6 oz [442g]
Noise Level 64 dB

Model #	Imperial Dimensions (in.)																		
VP8X-200 (ADJ) 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	2.79	3.45	N/A	0.20	1.30	2.20	3.70	0.965	4.00	9.05	1.13	0.50
Model #	Metric Dimensions (mm)																		
I-VP8X-200 (ADJ) 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	71.0	87.6	N/A	5.1	33.0	55.9	94.0	25.4	101.6	229.9	28.6	12.7

*-ADJ Version Only

Modular Venturi Vacuum Pumps with Pneumatic Blow-Off

VP8X-200 (L, M or H) (-ADJ) Pump – Optional Silencer: FA-51-3/8



VP8X-200H-ADJ with
FA-51-3/8 silencer

VP8X-200M with FA-51-3/8 silencer

Specifications:

Weight 2 lbs [1kg]
Noise Level 73 dB

Model #	Imperial Dimensions (in.)																		
VP8X-200 (ADJ) w/ FA-51-3/8	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	2.79	3.45	1.68	0.20	1.30	2.20	3.70	3.36	4.00	9.74	1.13	0.50
Model #	Metric Dimensions (mm)																		
I-VP8X-200 (ADJ) w/ FA-51-3/8	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	71.0	87.6	42.7	5.1	33.0	55.9	94.0	85.3	101.6	247.3	28.6	12.7

*-ADJ Version Only