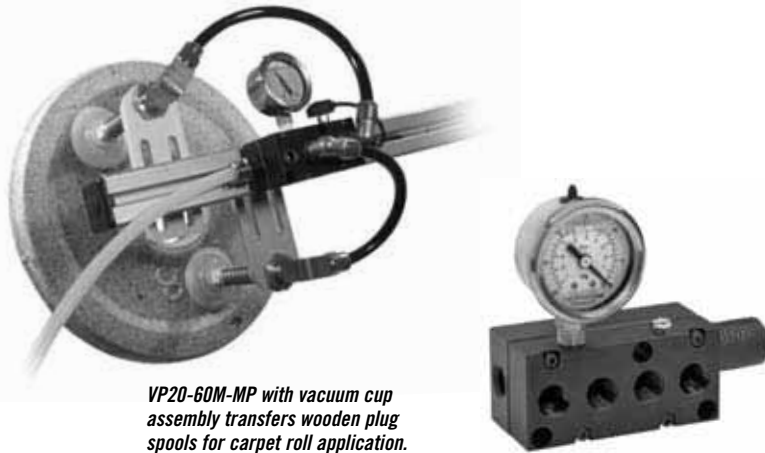


# Multi-port Venturi Vacuum Pumps with Silencers

## Multi-port Pumps: Mid Series VP20-MP



*VP20-60M-MP with vacuum cup assembly transfers wooden plug spools for carpet roll application.*

*VP20-90H-MP*

Vaccon's new Multi-port venturi vacuum pumps combine a venturi with a manifold to distribute vacuum to multiple locations. The result is a compact vacuum generation and distribution system for End-of-Arm Tools and applications where one pump powers multiple cups.

VP20-MP pumps have 4 vacuum ports that distribute vacuum equally to 4 locations with "Home-Run" plumbing. The streamlined design minimizes vacuum loss, maximizes vacuum flow and speeds cycle times for safe, efficient lifting operations.

In addition to the 4 topside vacuum ports, there is a port fitted with a 1.5" diameter glycerin filled vacuum gauge and another port that can be plumbed to a compressed air source to provide a blow-off. The manifold design allows one compressed air connection to feed blow-off air to all vacuum locations simultaneously, saving the need to plumb a separate blow-off line.

An M5 threaded port allows you to connect a Vaccon miniature vacuum sensor/switch to provide an electrical signal for vacuum achieved/part present and to alert failures.

### Ideal Applications:

- End-of-Arm Tooling/Robotics
- Pick and place
- Flexible manufacturing
- Packaging – carton erecting, robotic palletizing
- Automation assembly

### Features/Benefits

- High performance – vacuum up to 28" Hg [948mbar]
- High production – fast cycle times with shot to shot consistency
- High flow – maintains strong holding force, overcome leakage
- Home Run plumbing – saves compressed air
- Easy mounting – fractional and metric T-slot compatible
- Time saving – pre-designed, factory assembled, quick installation
- Safe operation – no electricity needed at pump
- Reliable – non-clogging, trouble free operation

### 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

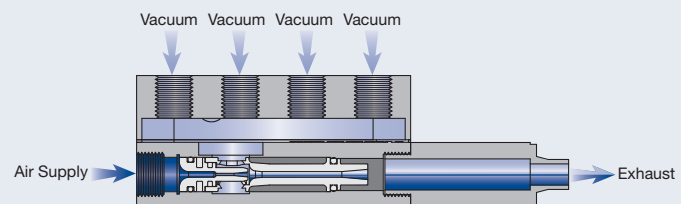
"H" 0-28"Hg [0 to 948mbar] for high vacuum/standard flow applications

### Pump Options:

- Interchangeable venturi cartridges – 11 different performance levels – (VP10 & VP20 Series only)
- Silencers - ST4 (straight-through) silencers won't clog, STAAA silencers for ultra quiet operation
- Miniature sensors or switches with optional quick disconnects
- 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] option)

### Principles of Operation:

Vacuum is produced instantly by supplying compressed air to a Mid series venturi cartridge and is distributed to the vacuum manifold ports, gauge port, switch/sensor port and the optional blow-off port if required.



### 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)

# Multi-port Venturi Vacuum Pumps

## VP20- (60, 90, 100, 150) (L, M, H) -MP Series Configurations and Options:

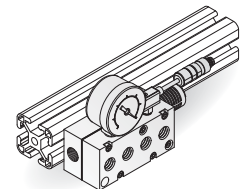
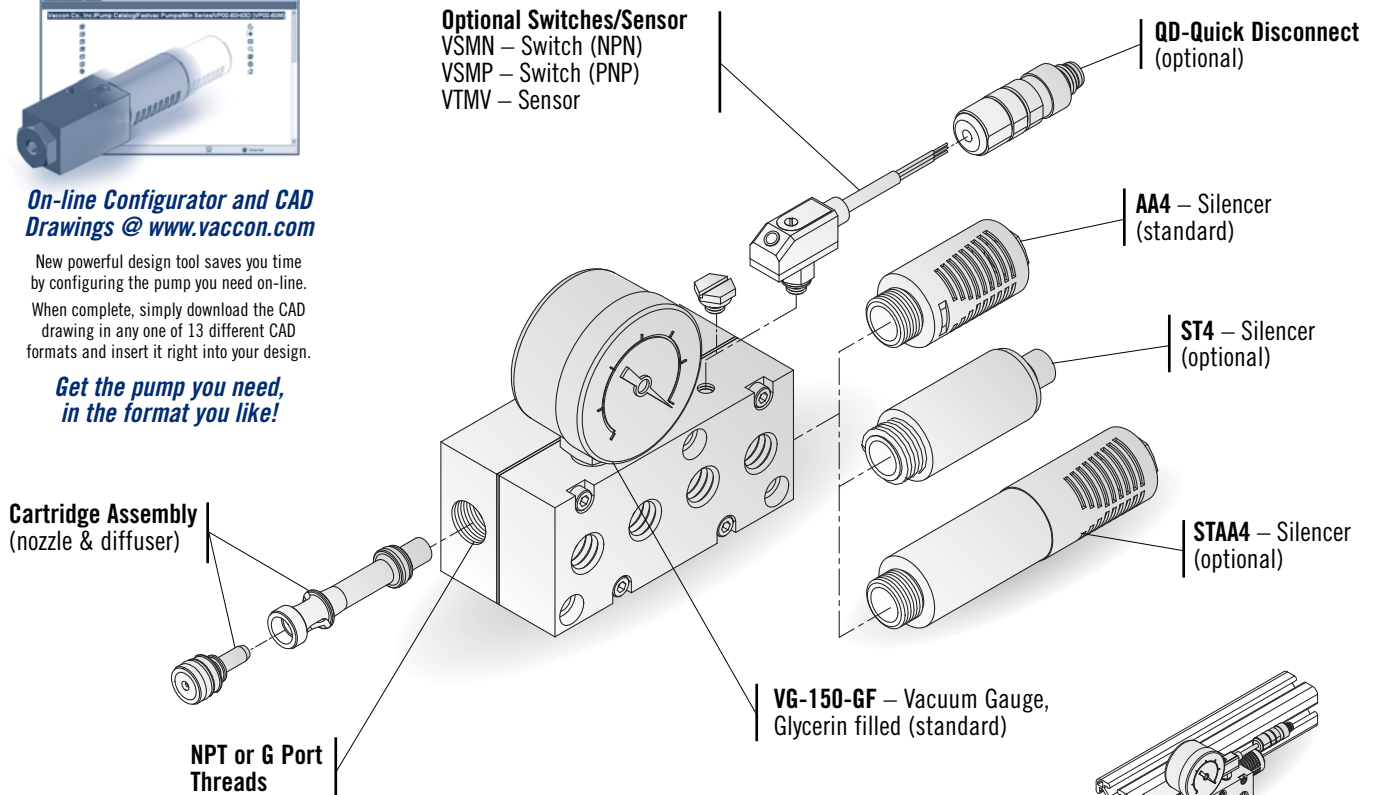
All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



### 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!*



VP20-MP pumps are Fractional and Metric T-Slot compatible. See EOAT Section.

### How to Specify:

**VP20 - 60 H - 60 - MP - ST4 - VSMP - QD**

P/N	Thread
VP20	NPT
I-VP20	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	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 Silencer

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

For complete Performance Data, see page 150.

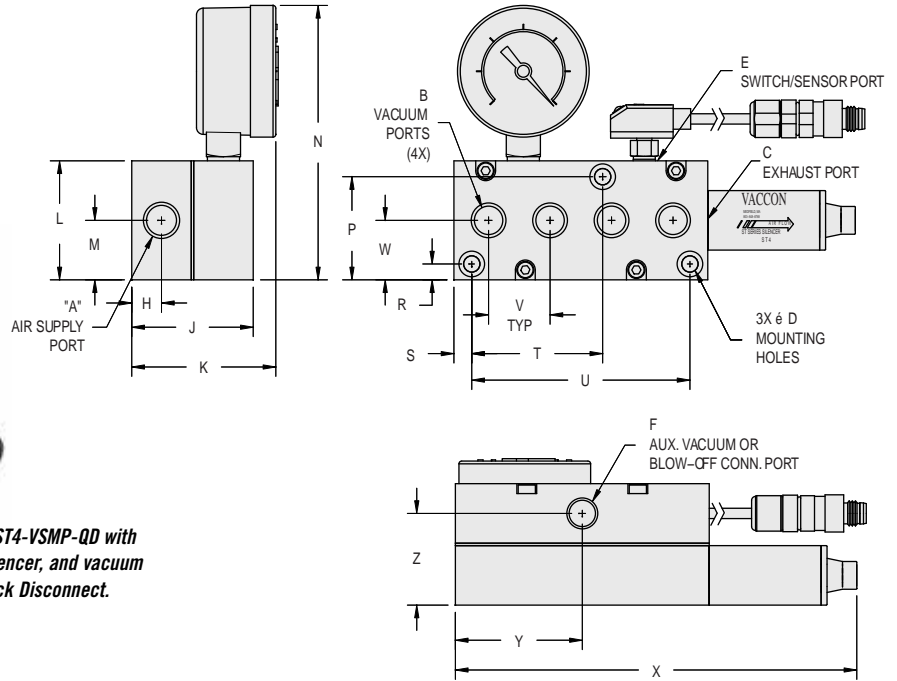


# Multi-port Venturi Vacuum Pumps

## VP20-(60, 90, 100, 150) (L, M, H) -MP – Optional ST4 Silencer, Ultra-Mini Switch/Sensor and QD-Quick Disconnect



*VP20-60M-MP-ST4-VSMP-QD with optional ST4 silencer, and vacuum switch with Quick Disconnect.*



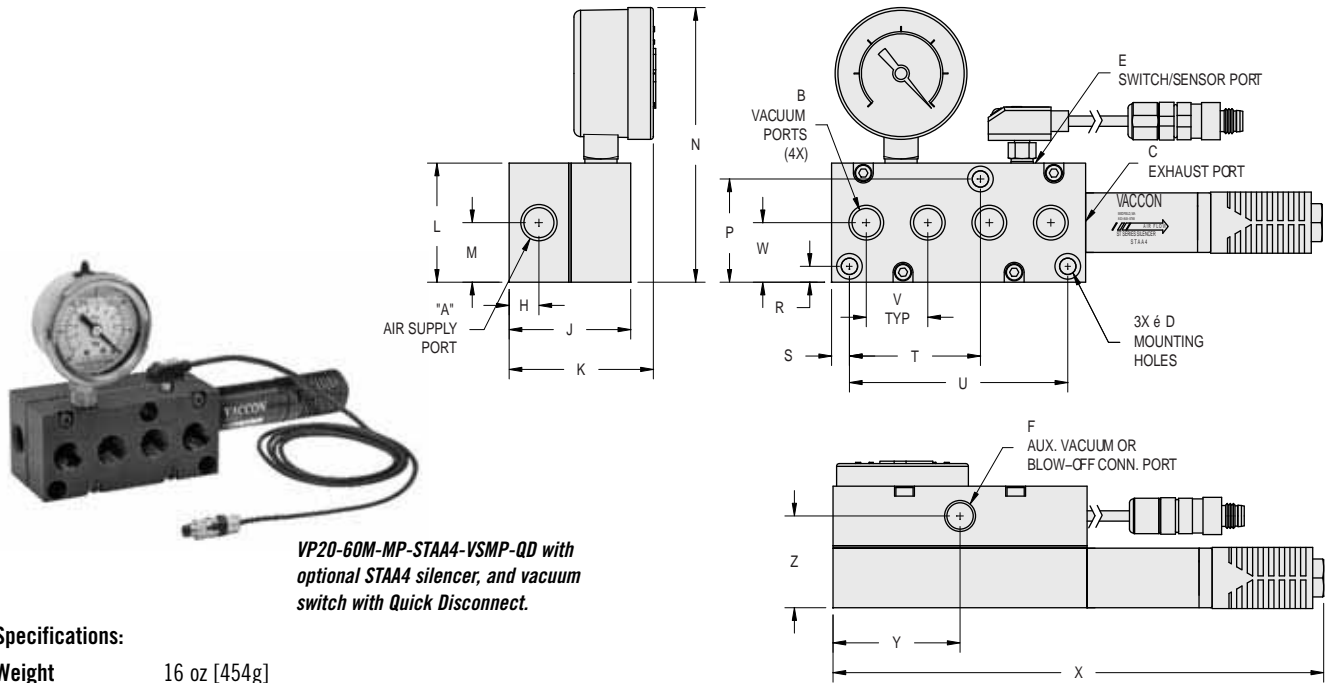
**Specifications:**

**Weight** 14 oz [397g]  
**Noise Level** 66 dB

Model #	Imperial Dimensions (in.)																					
VP20-MP w/ST4, VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	1/4 NPT F	1/4 NPT F	1/4 NPT F	0.21	M5	1/4 NPT F	0.38	1.53	1.82	1.50	0.75	3.46	1.30	0.20	0.23	1.65	2.75	0.78	0.75	5.06	1.60	1.16
Model #	Metric Dimensions (mm)																					
I-VP20-MP w/ST4, VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	G 1/4	G 1/4	G 1/4	5.2	M5	G 1/4	9.5	38.9	46.1	38.1	19.1	87.9	33.0	5.1	5.7	41.9	69.9	19.7	19.1	128.5	40.6	29.4

Vacuum Pumps - Multi-port

## VP20-(60, 90, 100, 150) (L, M, H) -MP – Optional STAA4 Silencer, Ultra-Mini Switch/Sensor and QD-Quick Disconnect



**Specifications:**

**Weight** 16 oz [454g]  
**Noise Level** 58 dB

Model #	Imperial Dimensions (in.)																					
VP20-MP w/STAA4, VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	1/4 NPT F	1/4 NPT F	1/4 NPT F	0.21	M5	1/4 NPT F	0.38	1.53	1.82	1.50	0.75	3.46	1.30	0.20	0.23	1.65	2.75	0.78	0.75	6.18	1.60	1.16
Model #	Metric Dimensions (mm)																					
I-VP20-MP w/STAA4, VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	G 1/4	G 1/4	G 1/4	5.2	M5	G 1/4	9.5	38.9	46.1	38.1	19.1	87.9	33.0	5.1	5.7	41.9	69.9	19.7	19.1	157.0	40.6	29.4

