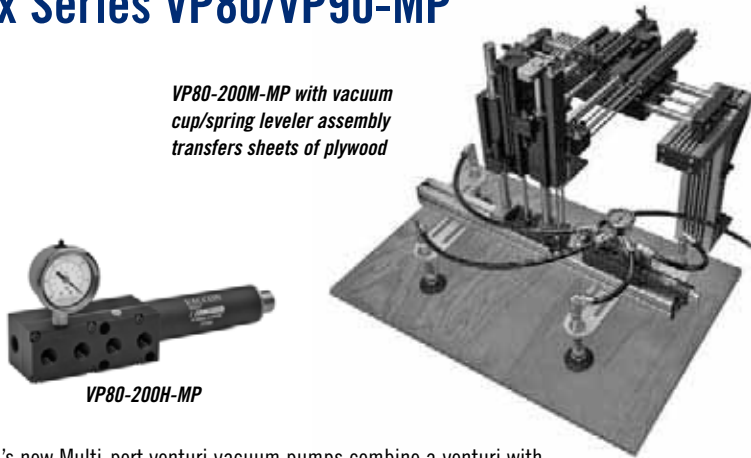


Multi-port Venturi Vacuum Pumps with Silencers

Multi-port Pumps: Max Series VP80/VP90-MP

VP80-200M-MP with vacuum cup/spring leveler assembly transfers sheets of plywood



VP80-200H-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.

VP80-MP pumps have 4 vacuum ports that distribute vacuum equally to 4 locations while the VP90-MP pumps have 6 vacuum ports that distribute vacuum equally to 6 locations, both 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 4/6 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 separate blow-off lines.

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:

- Robotics/End-of-Arm Tooling
- 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

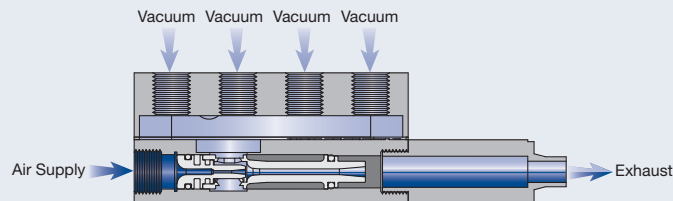
"H" 0-28"Hg [0 to 948mbar] for high vacuum/standard flow applications

Pump Options:

- Silencer options vary per model
- 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 Max series venturi and is distributed to the vacuum manifold ports, gauge port, the 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

For more information or technical assistance, please call 508-359-7200 or 800-848-8788 or email engineering@vaccon.com

Multi-port Venturi Vacuum Pumps

VP80-200 (L, M, H) -MP Series Configurations and Options:

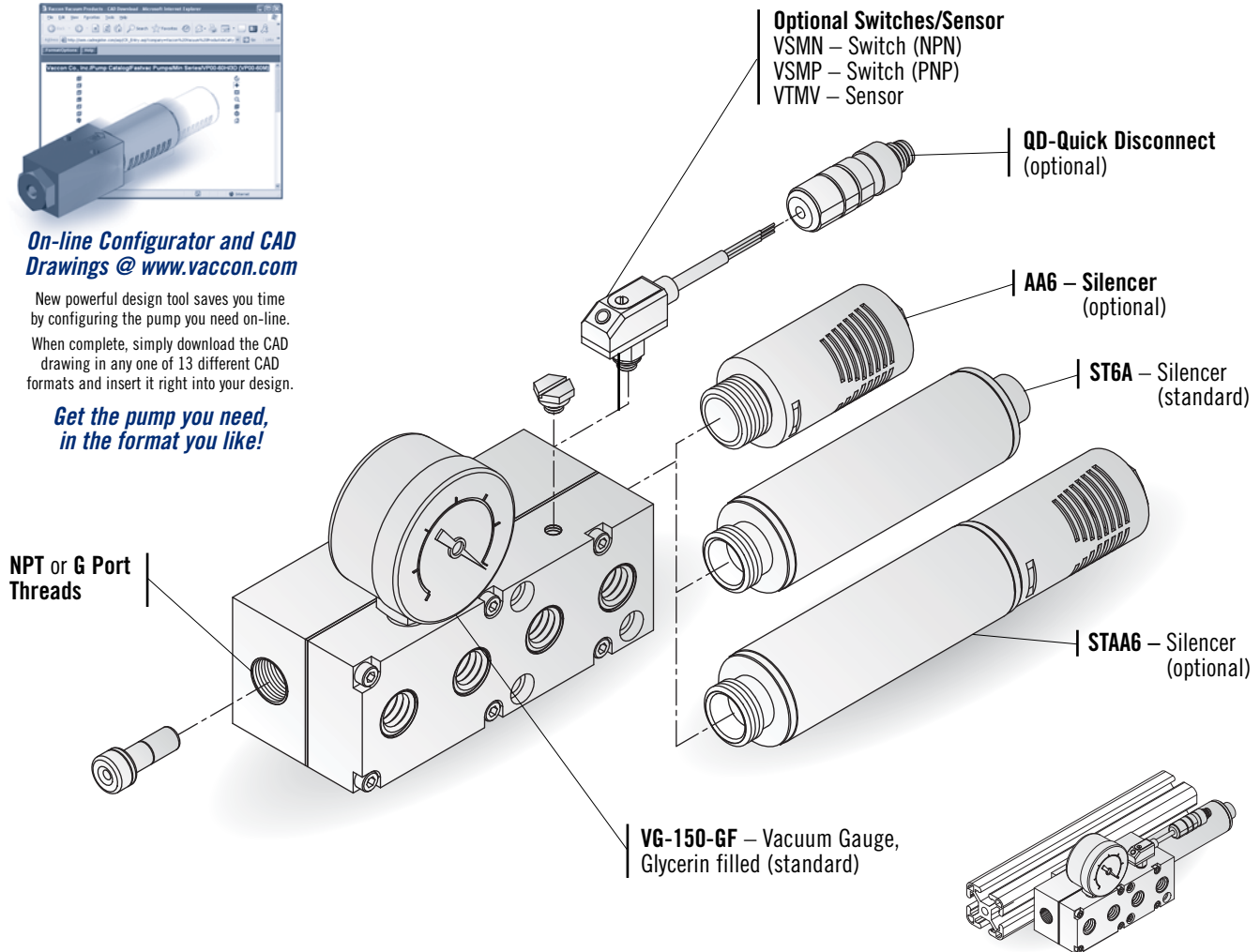
All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



On-line Configurator and CAD Drawings @ www.vaccon.com

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 - MP - ST6A - VSMP

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]

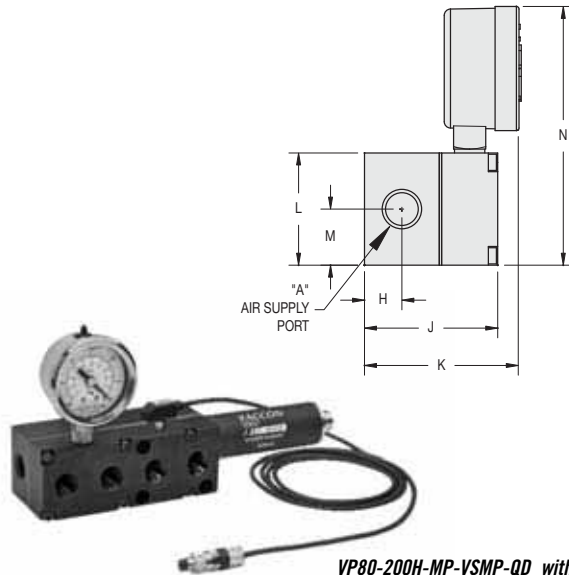
P/N	Operating Pressure
	80 PSI [5.5 Bar] (Std)
-60	60 PSI [4.1 Bar]

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

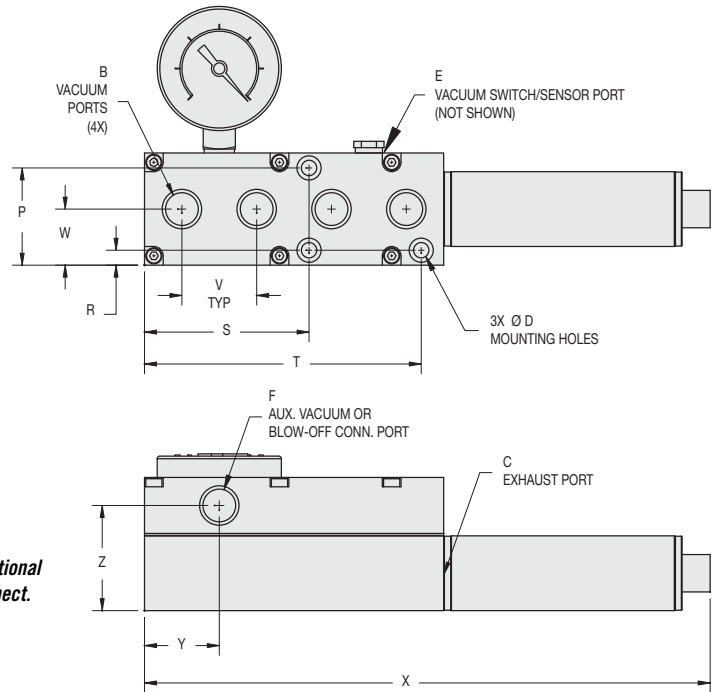
P/N	Silencer
	ST6A Straight-Through (Std)
AA6	Closed End
STAA6	Hybrid

For complete Performance Data, see page 153.

VP80-200 (L, M, H) -MP Pump – Optional AA6 or STAA6 Silencers with Ultra-Mini Switch/Sensor and QD-Quick Disconnect



VP80-200H-MP-VSMP-QD with optional vacuum switch and Quick Disconnect.



Specifications:	ST6A	AA6	STAA6
Weight	20 oz [567 g]	18 oz [510 g]	21 oz [595 g]
Noise Level	70 dB	72 dB	64 dB

Model #	Imperial Dimensions (in.)																					
VP80-200-MP VSMP-STAA6	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
AA6	1/4 NPT F	1/4 NPT F	3/8 NPT F	0.21	M5	1/4 NPT F	0.50	1.78	2.06	1.50	0.75	3.46	1.30	0.20	2.20	3.70	N/A	1.00	0.75	7.56	1.00	1.41
STAA6																				6.00		
																				9.00		
Model #	Metric Dimensions (mm)																					
I-VP80-200-MP VSMP-STAA6	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
AA6	G 1/4	G 1/4	G 3/8	5.2	M5	G 1/4	12.7	45.2	52.2	38.1	19.1	87.9	33.0	5.1	55.9	94.0	N/A	25.4	19.1	192.0	25.4	35.7
STAA6																				152.4		
																				228.6		

VP80-200-MP Pump Standard Specifications:

Pump & Cartridge Material:	Anodized Aluminum (For silencer material, see pages 235-237)
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-MP 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.
Control Valves:	3 way/2 position (faster part release) – minimum orifice 0.25" [6mm]
Mounting Holes:	Mounting holes accept #10-32 or M5 screws

Multi-port Venturi Vacuum Pumps

VP80-250 (L, M, H)-MP Series Configurations and Options:

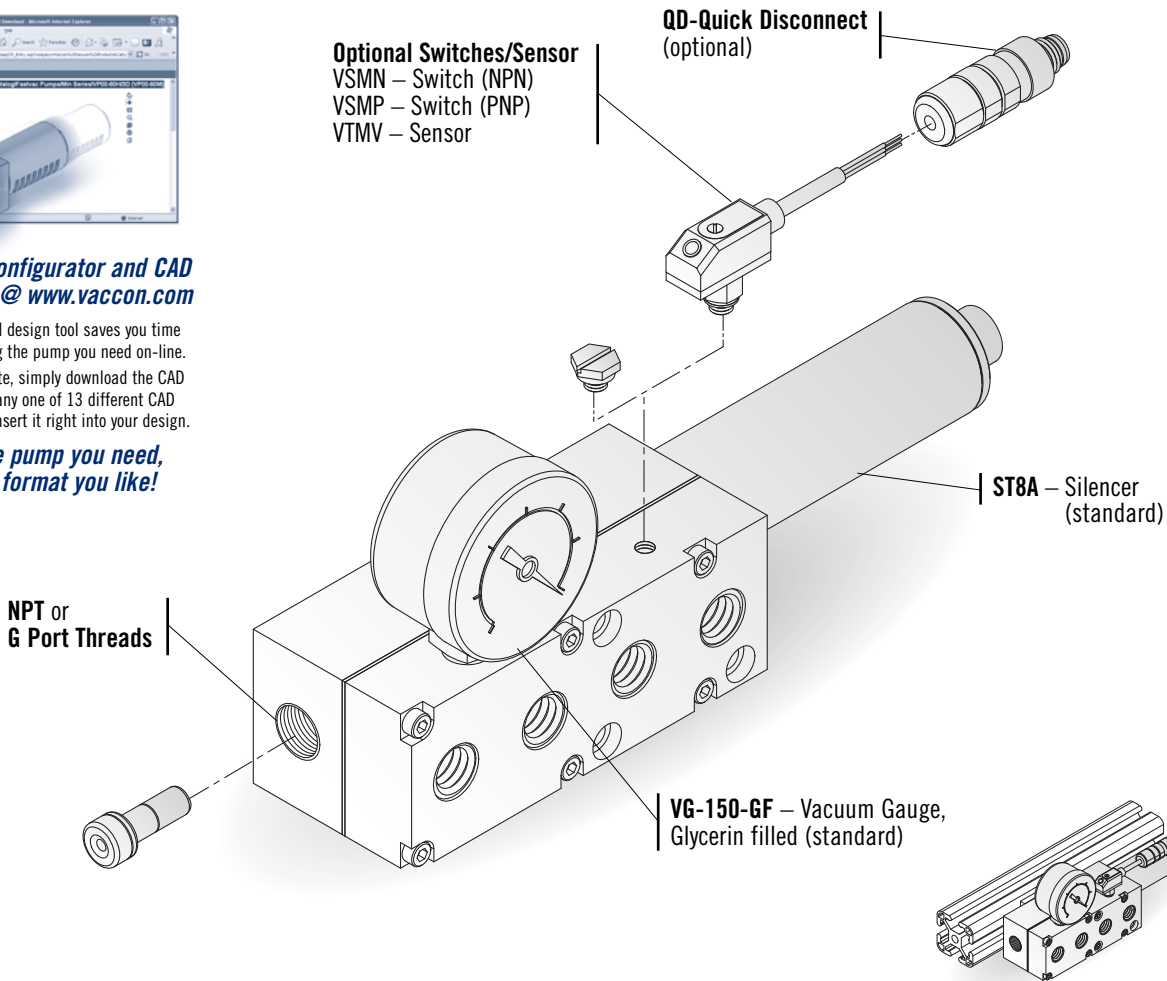
All Vaccon pumps offer a variety of options and accessories to meet your specific requirements. Please configure your pump from the options listed below.



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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!



VP80-250 MP pumps are Fractional and Metric T-slot compatible. See EOAT Section.

How to Specify:

VP80-250 H - 60 - MP - VSMP

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

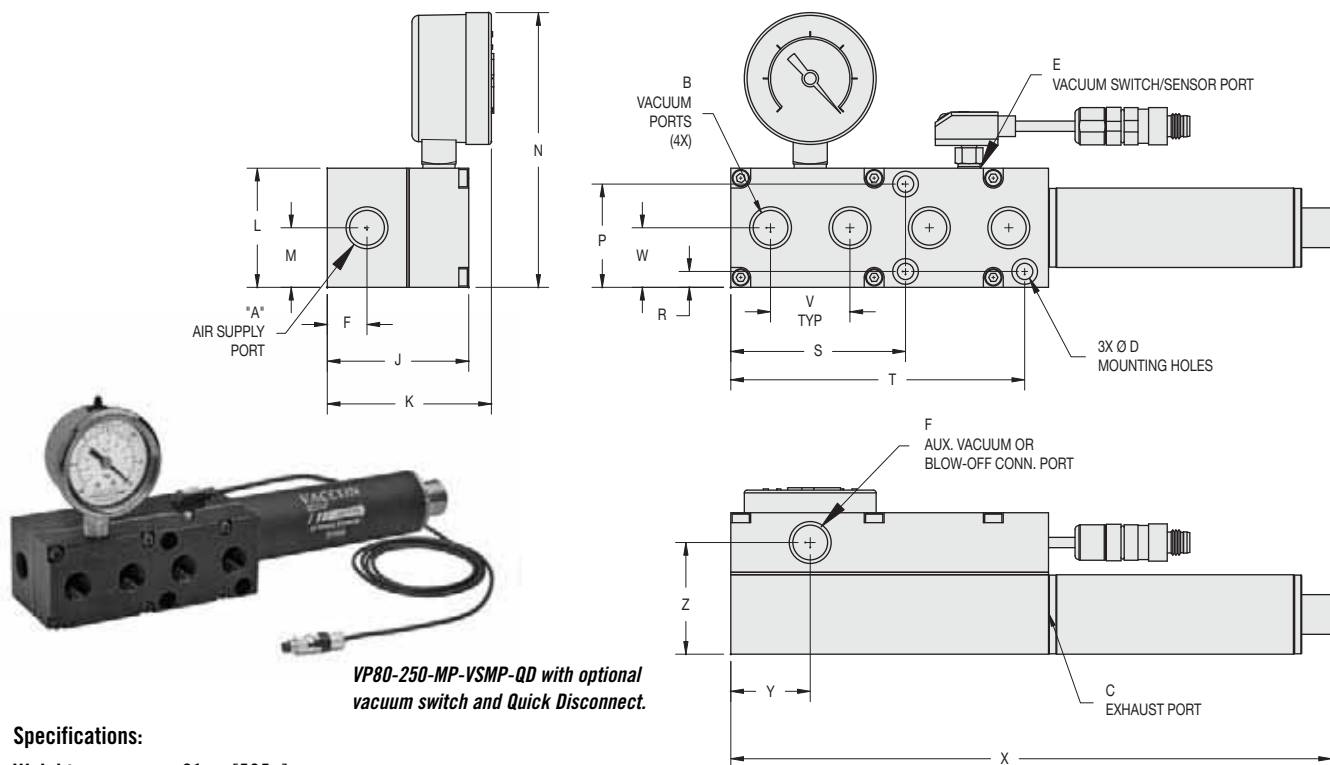
P/N	Max. Vac Level
L	10"Hg [339 mbar]
M	20"Hg [677 mbar]
H	28"Hg [948 mbar]

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

For complete Performance Data, see page 153.

VP80-250 (L, M, H)-MP Pump with Optional Ultra-Mini Switch/Sensor and QD-Quick Disconnect



VP80-250-MP-VSMP-QD with optional vacuum switch and Quick Disconnect.

Specifications:

Weight 21 oz [595g]
 Noise Level 73 dB

Model #	Imperial Dimensions (in.)																					
VP80-250-MP VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	3/8 NPT F	1/4 NPT F	1/2 NPT F	0.21	M5	1/4 NPT F	0.50	1.78	2.07	1.50	0.75	3.46	1.30	0.20	2.20	3.70	N/A	1.00	0.75	7.56	1.00	1.41
Model #	Metric Dimensions (mm)																					
I-VP80-250-MP 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 3/8	G 1/4	G 1/2	5.2	M5	G 1/4	12.7	45.2	52.5	38.1	19.1	87.9	33.0	5.1	55.9	94.0	N/A	25.4	19.1	192.1	25.4	35.7

VP80-250-MP Pump Standard Specifications:

Pump & Cartridge Material: Anodized Aluminum (For silencer material, see page 236)
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] standard or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures

VP80-250-MP 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.
Control Valves: 3 way/2 position (faster part release) – minimum orifice 0.25" [6mm]
Mounting Holes: Mounting holes accept #10-32 or M5 screws

Multi-port Venturi Vacuum Pumps

VP90-300 & 350 (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.

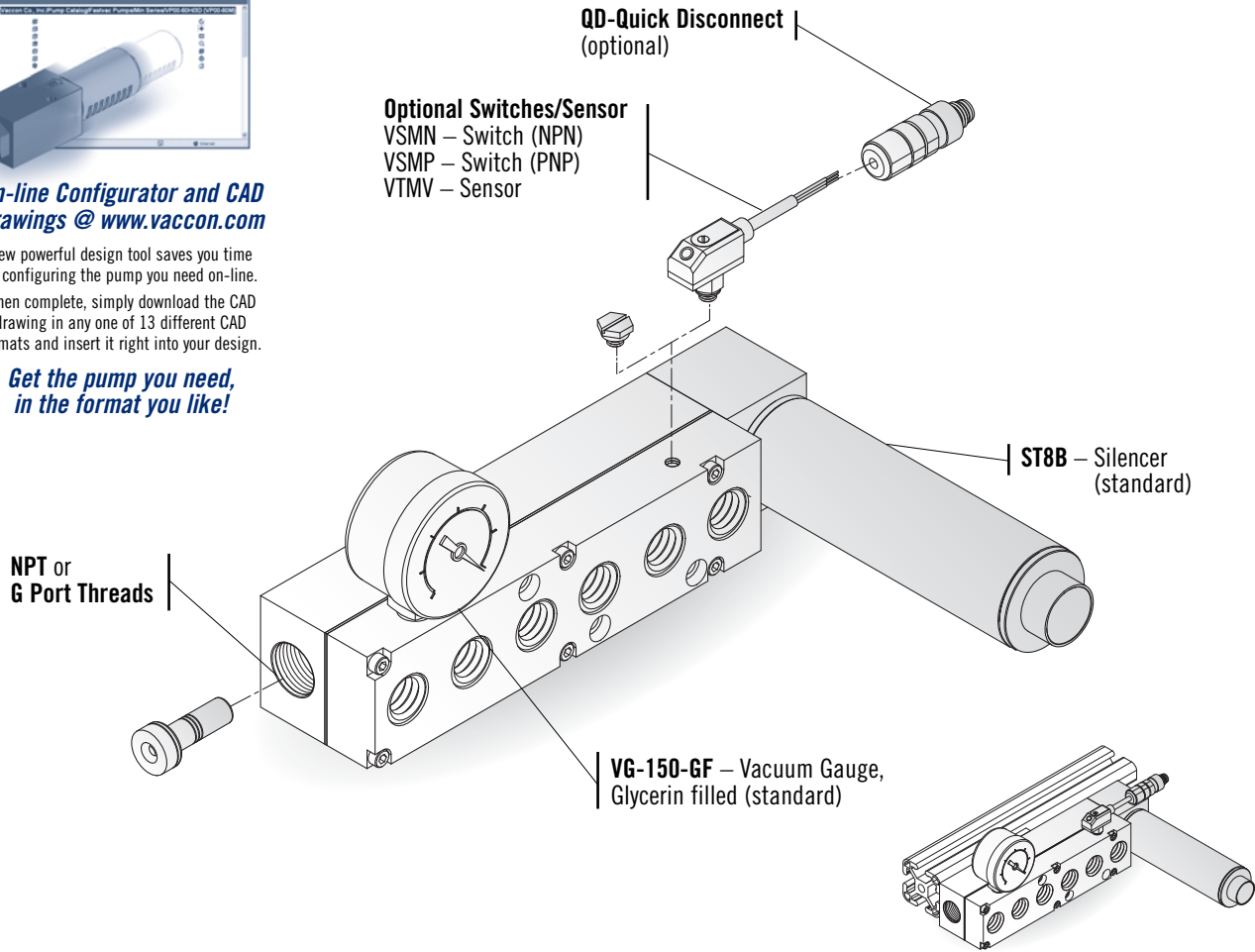


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New powerful design tool saves you time by configuring the pump you need on-line. When complete, simply download the CAD drawing in any one of 13 different CAD formats and insert it right into your design.

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

Vacuum Pumps - Multi-port



VP90-300/350 MP pumps are Fractional and Metric T-slot compatible. See EOAT Section.

How to Specify:

VP90-300 M - 60 - MP - VSMP

P/N	Thread
VP90-300	NPT
I-VP90-300	G-Port
VP90-350	NPT
I-VP90-350	G-Port

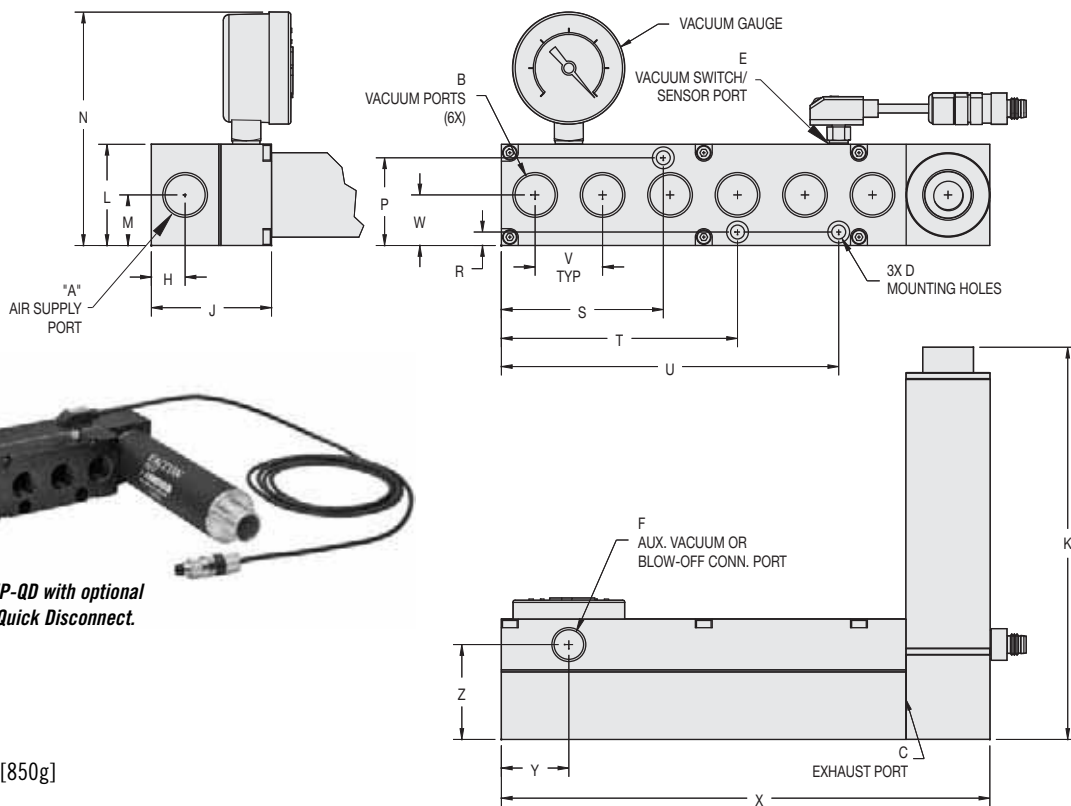
P/N	Max. Vac Level
L	10"Hg [339 mbar]
M	20"Hg [677 mbar]
H	28"Hg [948 mbar]

For complete Performance Data, see page 153.

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

VP90-300 & VP90-350 (L, M, H)-MP Pump with Optional Ultra-Mini Switch/Sensor and QD-Quick Disconnect



VP90-300M-MP-VSMP-QD with optional vacuum switch and Quick Disconnect.

Specifications:

Weight 30 oz [850g]
Noise Level 73 dB

Model #	Imperial Dimensions (in.)																					
VP90-300/ 350-MP VSMP-QD	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
	3/8 NPT F	3/8 NPT F	1/2 NPT F	0.21	M5	1/4 NPT F	0.50	1.78	5.81	1.50	0.75	3.46	1.30	0.20	2.40	3.50	5.00	1.00	0.75	7.24	1.00	1.41
Model #	Metric Dimensions (mm)																					
I-VP90-300/ 350-MP 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 3/8	G 3/8	G 1/2	5.2	M5	G 1/4	12.7	45.2	147.7	38.1	19.1	87.9	33.0	5.1	61.0	88.9	127.0	25.4	19.1	183.9	25.4	35.7

VP90-300/350-MP Pump Standard Specifications:

Pump & Cartridge Material: Anodized Aluminum (For silencer material, see page 236)
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

VP90-300/350-MP Operating and Installation Instructions:

Supply Line: 1/2" O.D. [12mm] tube recommended
Vacuum Line: 1/2" O.D. [12mm] tube recommended – 3/4" [22mm] for vacuum lines exceeding 3' (1M)
Vacuum Line Filtration: Typically filters are not required, if desired Vaccon recommends – VF375F. See page 282.
Control Valve: 3 way/2 position (faster part release), minimum orifice – 0.25" [6mm]
Mounting Holes: Mounting holes accept #10-32 or M5 screws

