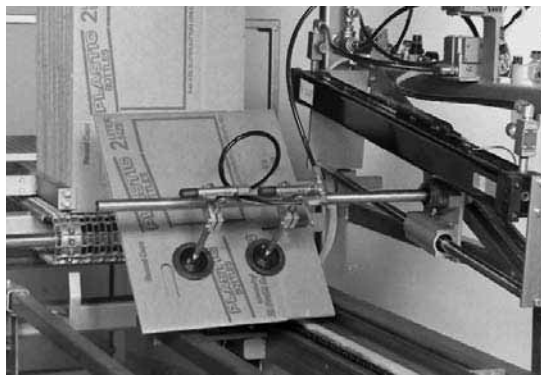


Cylindrical Venturi Vacuum Pumps

Mini J Series: "M"(mini) Version



JD-100M – carton erecting application



JS-150M-ST4

Standard Pump:

The J Series "M" (Mini) version cylindrical venturi vacuum pumps feature a high power-to-size ratio, measuring only 3" L x 3/4" OD. Choose from 11 models that can generate up to 28"Hg [948mbar] and 3.5 SCFM [99LPM] of vacuum flow. Lightweight, quiet and cool operating, J Series pumps are ideal for confined spaces, where they can be mounted in-line near the point of use for rapid response.

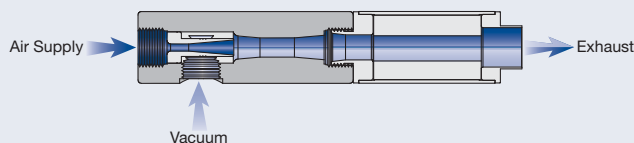
The single-stage design allows ingested contaminants to flow through the pump without clogging ensuring continuous operation. Constructed of a single material, with no seals or moving parts, J Series pumps are virtually indestructible. They can be manufactured in a variety of materials, making them ideal for use in adverse operating conditions.

J Series pumps provide a constant vacuum flow, rather than a fluctuating flow typically associated with diaphragm pumps. They operate with an instantaneous response in pulsed applications or on a continuous basis.

J Series pumps can be powered by alternate media (gases, liquids) etc. For liquid powered pumps please see our JW series on page 183.

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.



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:

- Carton erecting
- Pick and place where one pump powers each cup
- Vessel evacuation
- Medical/pharmaceutical applications
- Food processing applications
- High temperature applications
- Caustic applications

Features/Benefits

- High Performance - powerful vacuum up to 28"Hg [948mbar]
- Durable – rugged aluminum body construction
- Fast response – mounts in-line, and installs close to vacuum point – no delay due to long plumbing lines
- Efficient – minimal air consumption, provides instantaneous vacuum as needed
- Safe operation – no electricity needed
- Reliable, trouble-free operation
 - ~ No moving parts to wear
 - ~ No flap valves to stick open
 - ~ No maintenance
 - ~ No downtime

Performance Level Designation:

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

"JD" 0-20"Hg, [0 to 677mbar] for medium vacuum / high flow applications

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

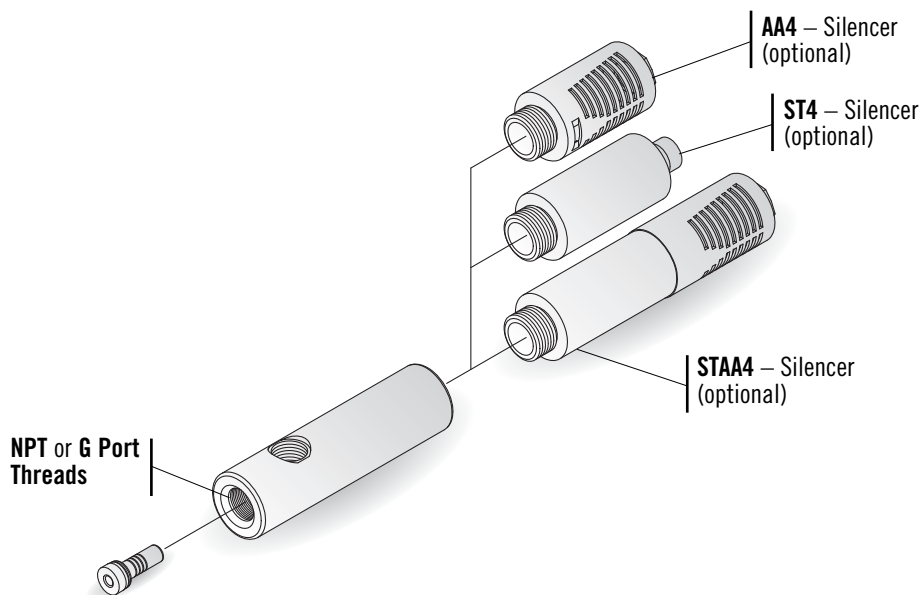
Pump Options:

- Silencers: AA4-closed end silencer, ST4 - straight-through silencer won't clog, STAA4 silencers 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
- For chemical compatibility requirements, high temperature, food, medical and caustic applications, custom materials are available including stainless steel, PEEK, Delrin,™ Teflon,™ PVC.

Cylindrical Venturi Vacuum Pumps

J Series "M" Version Vacuum Pump – 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:

P/N	Thread	Max. Vac Level
JF	NPT	10"Hg [339mbar]
JD	NPT	20"Hg [677mbar]
JS	NPT	28"Hg [948mbar]
I-JF	G Port	10"Hg [339mbar]
I-JD	G Port	20"Hg [677mbar]
I-JS	G Port	28"Hg [948mbar]

P/N	Max. Flow Level
-60M	Not available in JF Models
-90M	
-100M	
-150M	

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



P/N	Material
	Anodized Aluminum
303	303 Stainless Steel
304	304 Stainless Steel
316	316 Stainless Steel
316L	316 Low Carbon Stainless
PVC	PVC
TEF	PTFE
PK	PEEK
DEL	Acetal

P/N	Silencer*
	No Silencer (Standard)
AA4	AA4 - Closed-End
ST4	ST4 - Straight-Through
STAA4	STAA4 - Hybrid

For complete Performance Data, see page 187.

*Vaccon strongly recommends the use of silencers on all pumps except where the exhaust is plumbed away.

J Series "M" Version Pump Standard Specifications:

Pump Material:	Anodized Aluminum (for silencer material - See pages 233-237)
Medium:	Filtered (50 Micron) un-lubricated, non-corrosive dry gases
Operating Temperature:	-100°F~400°F [-73°~204°C] (without silencer)
Operating Pressure:	80 PSI [5.5 BAR] standard or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures

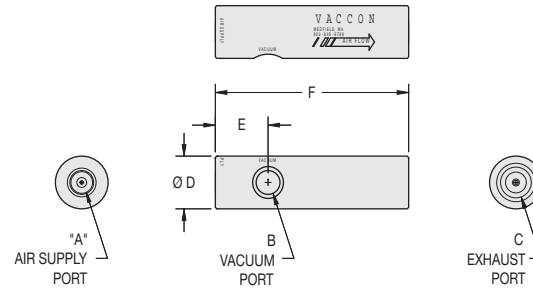
J Series "M" Version Pump Operating and Installation Instructions:

Venturi size:	60M and 90M	100M and 150M
Supply Line:	1/4" O.D. [6mm] tube recommended	3/8" O.D. [10mm] tube recommended
Vacuum Line:	1/4" O.D. [6mm] tube recommended	3/8" O.D. [10mm] tube recommended
Vacuum Line Filtration:	Typically filters are not required, if desired Vaccon recommends – VF-125LPM – See page 282	Typically filters are not required, if desired Vaccon recommends – VF-250F – See page 282

Standard Pumps: J (F, D, S) – (60, 90, 100, 150) M



JS-100M



Specifications:

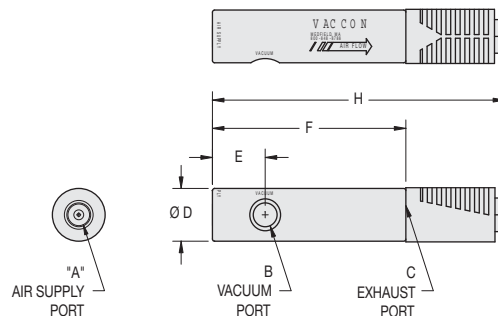
Weight	1.7 oz [48.2g]
Noise Level	Vaccon highly recommends the use of silencers on all vacuum pumps unless the exhaust is being plumbed away.

Model #	Imperial Dimensions (in.)					
	A	B	C	D	E	F
J (F, D, S) – (60-150) M	1/8 NPT F	1/8 NPT F	1/4 NPT F	0.75	0.72	2.75
Model #	Metric Dimensions (mm)					
	A	B	C	D	E	F
I-J (F, D, S) – (60-150) M	G 1/8	G 1/8	G 1/4	19.1	19.1	69.9

J (F, D, S) – (60, 90, 100, 150) M Pump – Optional Silencer: AA4



JS-90M-AA4



Specifications:

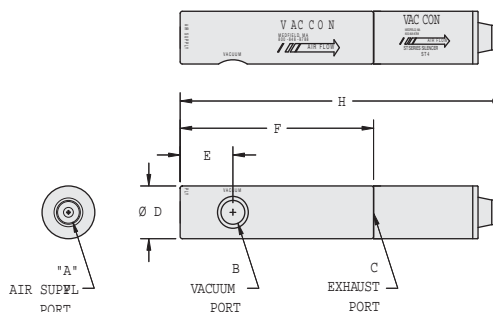
Weight	1.9 oz [53.9g]
Noise Level	64 dB

Model #	Imperial Dimensions (in.)						
	A	B	C	D	E	F	H
J (F, D, S) – (60-150) M-AA4	1/8 NPT F	1/8 NPT F	1/4 NPT F	0.75	0.75	2.75	4.55
Model #	Metric Dimensions (mm)						
	A	B	C	D	E	F	H
I-J (F, D, S) – (60-150) M-AA4	G 1/8	G 1/8	G 1/4	19.1	19.1	69.9	115.6

J (F, D, S) – (60, 90, 100, 150) M Pump – Optional Silencer: ST4



JD-60M-ST4



Specifications:

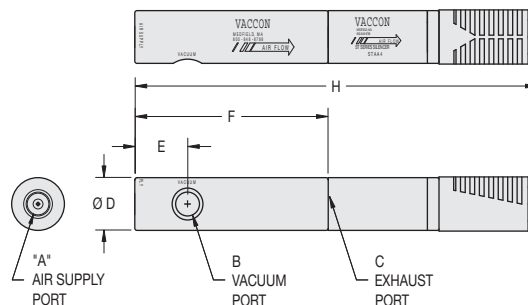
Weight 1.9 oz [53.9g]
Noise Level 66 dB

Model #	Imperial Dimensions (in.)						
	A	B	C	D	E	F	H
J (F, D, S) – (60-150) M-ST4	1/8 NPT F	1/8 NPT F	1/4 NPT F	0.75	0.75	2.75	4.61
Model #	Metric Dimensions (mm)						
	A	B	C	D	E	F	H
I-J (F, D, S) – (60-150) M-ST4	G 1/8	G 1/8	G 1/4	19.1	19.1	69.9	117.1

J (F, D, S) – (60, 90, 100, 150) M Pump – Optional Silencer: STAA4



JS-150M-STAA4



Specifications:

Weight 2.1 oz [59.5g]
Noise Level 58 dB

Model #	Imperial Dimensions (in.)						
	A	B	C	D	E	F	H
J (F, D, S) – (60-150) M-STAA4	1/8 NPT F	1/8 NPT F	1/4 NPT F	0.75	0.75	2.75	5.73
Model #	Metric Dimensions (mm)						
	A	B	C	D	E	F	H
I-J (F, D, S) – (60-150) M-STAA4	G 1/8	G 1/8	G 1/4	19.1	19.1	69.9	145.5