

Vaccon Vacuum Pumps, Cups & Accessories
New – *Vaccon End-of-Arm Tooling*

VACCON
VACUUM PRODUCTS
Master Catalog



New! End-of-Arm Tooling

*Vaccon...
Better Design
Better Performance
Better Value
Simply Better!*



Cartridges



Modular Vacuum Pumps



Pneumatic Blow-off Vacuum Pumps



Air Saver Pumps



Adjustable Dirt Tolerant Pumps



Cups



Material Conveying



Air Amplifiers/ Blowers

Serving the:

Robotics, Automation, Packaging, Electronics, Printing, Automotive, Pharmaceutical, Plastics, Food Processing, Chemical, Medical, Appliance, Laboratory, Glass, Paper, Gas, Marine, Injection Molding, HVAC, and Process Control Industries for over 35 years



Ultra-Mini Cylindrical Venturi Vacuum Pumps

Ultra-Mini J Series: JS-40UM



JS-40UM generates 27"Hg and weighs less than 1 oz



Ultra-mini pump for drip control in dispensing applications

Standard Pump:

The JS-40UM (Ultra-Mini) cylindrical venturi vacuum pump is the smallest complete venturi vacuum pump that Vaccon offers. Incredibly compact and powerful – it measures the size of your finger tip and generates up to 27"Hg [914mbar]. Lightweight, quiet and cool operating, JS-40UM 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 186.

Ideal Applications:

- Gas sampling and analysis
- Leak testing
- Portion/ drip control (suck-back) for dispensing liquids
- Liquid transfer
- Pick and place for small, non porous parts
- Small vessel evacuation
- Used as vacuum source for vacuum pencil kit (see page 277)

Features/Benefits

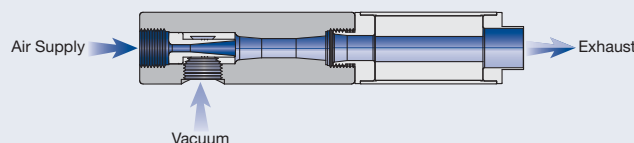
- High performance - powerful vacuum up to 27"Hg [914mbar]
- Lightweight – less than 1 oz. [28.3g]
- Compact – 1.25" x .56"OD [31.75mm x 14.22 mm OD]
- Input pressure from 5 PSI [0.34BAR]
- Fast response – Mounts in-line, and installs close to vacuum point – no delay due to long plumbing lines
- Efficient – 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

Pump Options:

- Optional Silencer: VCF2-1032M
- Choice of operating pressures to meet machine and factory air supply 80 PSI [5.5BAR] standard, 60 PSI [4.0 BAR] optional
- G port threads for metric machines – an "I" prefix designates products with metric threads
- For chemical compatibility requirements, high temperature, food, medical and caustic applications, custom materials are available including stainless steel, PEEK, Delrin,™ Teflon,™ PVC.

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!

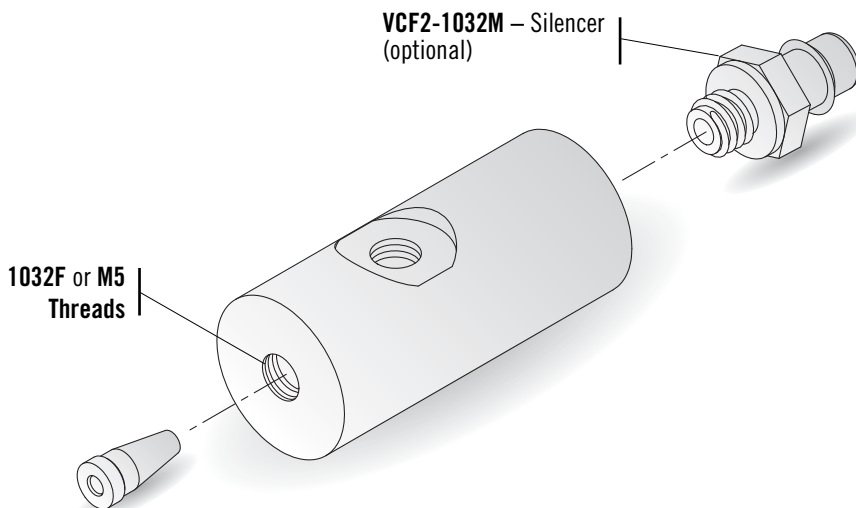
Vacuum technology isn't an exact science. To ensure proper product selection, Vaccon offers free application engineering assistance, a 30 Day Test & Evaluation Program or you can send sample products to our in-house test facility and we will test and size a pump for you.

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

JS-40UM (Ultra Mini) 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.



- **Configure Products**
- **2D & 3D CAD Files**
- **Purchase On-line**



Let us help you get the pump you need:

[Click Here](#)

How to Specify:

JS-40UM - 60 - VCF2 - 303

P/N	Imp. Thread	Max. Vac.
JS-40UM	1032F	27"Hg [914mbar]

P/N	Metric Thread	Max. Vac.
I-JS-40UM	M5	27"Hg [914mbar]

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

For complete Performance Data, see page 167.

P/N	Material
	Anodized Aluminum (Standard)
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)
VCF2	VCF2-1032M (Straight-through)

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

JS-40UM Pump Standard Specifications:

- Pump Material:** Anodized Aluminum Standard (Silencer material – Brass)
- 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] or 60 PSI [4.0 BAR] – Consult Factory for other operating pressures

JS-40UM Pump Operating & Installation Instructions:

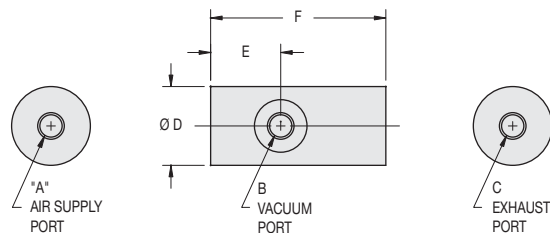
- Supply and Vacuum Lines:** Min. 5/32" [4mm], 1/4" O.D. [6mm] tube preferred for supply lines exceeding 3' [1M]
- Vacuum Line Filtration:** Not required



Standard Pump: JS-40UM



Standard JS-40UM without silencer.



Specifications:

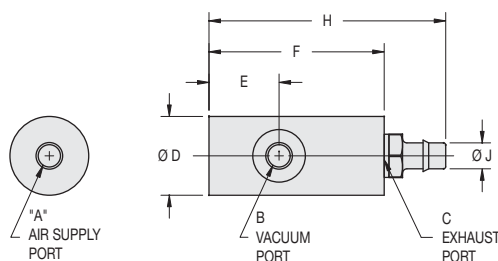
Weight 0.3 oz [8.5g]
Noise Level 58 dB

Model #	Imperial Dimensions (in.)					
	A	B	C	D	E	F
JS-40UM	10-32F	10-32F	10-32F	0.56	0.50	1.25
Model #	Metric Dimensions (mm)					
	A	B	C	D	E	F
I-JS-40UM	M5	M5	M5	14.3	12.7	31.8

JS-40UM: Optional Silencer: VCF2-1032M



JS-40UM-VCF2



Specifications:

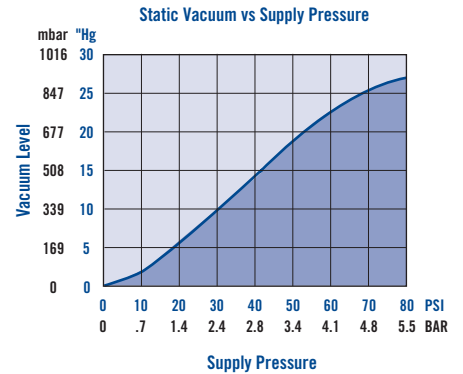
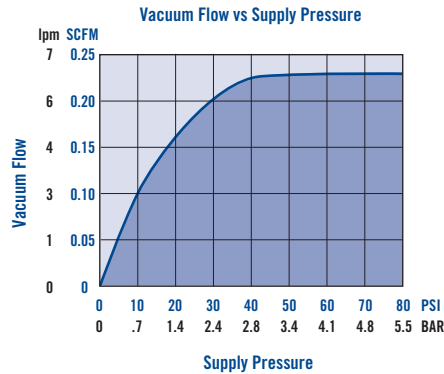
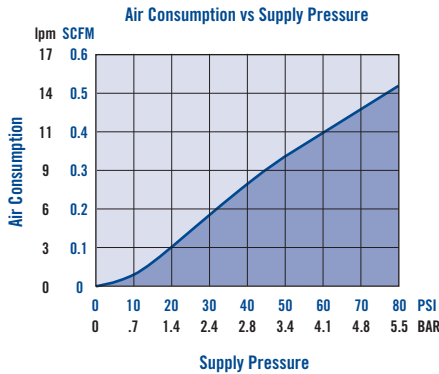
Weight 0.4 oz [9.6g]
Noise Level 54 dB

Model #	Imperial Dimensions (in.)							
	A	B	C	D	E	F	H	J
JS-40UM-VCF2	10-32F	10-32F	10-32F	0.56	0.50	1.25	1.69	0.19
Model #	Metric Dimensions (mm)							
	A	B	C	D	E	F	H	J
I- JS-40UM-VCF2	M5	M5	M5	14.3	12.7	31.8	42.9	4.7

Performance Data – JS-40UM Imperial and Metric

Model #	Air Consumption (SCFM) @ 80 PSI	Imperial - Vacuum Flow (SCFM) vs Vacuum Level ("Hg) @ 80 PSI									
		0"Hg	3"Hg	6"Hg	9"Hg	12"Hg	15"Hg	18"Hg	21"Hg	24"Hg	27"Hg
JS-40UM	0.52	0.23	0.20	0.17	0.15	0.13	0.10	0.08	0.05	0.03	0.00
		Imperial - Evacuation Time (Seconds) Based on 1 cu. ft. Volume ("Hg)									
		0"Hg	3"Hg	6"Hg	9"Hg	12"Hg	15"Hg	18"Hg	21"Hg	24"Hg	27"Hg
		0.00	24.80	54.40	89.50	130.30	178.30	240.40	334.50	516.70	1028.00

Model #	Air Consumption L/min	Metric - Vacuum Flow (L/min) vs Vacuum Level (mbar)									
		0mbar	102mbar	203mbar	305mbar	406mbar	508mbar	609mbar	711mbar	813mbar	914mbar
I-JS-40UM	14.7	6.5	5.7	4.8	4.2	3.7	2.8	2.3	1.4	0.8	0.0
		Metric - Evacuation Time (Seconds) Based on 1 liter Volume (mbar)									
		0mbar	102mbar	203mbar	305mbar	406mbar	508mbar	609mbar	711mbar	813mbar	914mbar
		0.0	0.9	1.9	3.2	4.6	6.3	8.5	11.8	18.2	36.3



Note 1: Standard operating pressure for Vaccon pumps is 80 PSI. Pumps can be factory modified to run at other operating pressures i.e. 60 PSI, 50PSI etc. The values shown on the performance chart will remain the same for all operating pressures.

Note 2: Evacuation speed is linear with volume i.e. a 2 cu. ft volume will take twice as long to evacuate as a 1 cu ft. volume.