

Max-size Venturi Vacuum Pump with Silencer.

Fastvac Max Series: VP90-300 & 350



VP90-350M-ST8B handles dirty, heavy, irregular shaped products for the stonework industry



VP90-350H

Standard Pump:

The VP90-300 & 350 Fastvac Max Series air-powered venturi vacuum pumps provide high vacuum flow rates for the rapid evacuation of large volumes of air or for overcoming leakage in order to sustain high vacuum levels while handling porous materials.

Highly efficient, capable of reaching 28"Hg [948mbar], the VP90's are dirt tolerant and include a silencer for quiet operation. Unlike the Mid series pumps that use interchangeable cartridge assemblies, the Max series pumps (VP80 & VP90's) use a non-removable press-fit venturi assembly.

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

Ideal Applications:

- Pick and place of large/heavy/porous objects
- Rapid evacuation of large volumes of air
- Vacuum filling
- Vessel evacuation
- One pump powers multiple vacuum cups
- End-of-Arm Tooling/Robotics
- Packaging – bag/box/carton folding and handling
- Vacuum clamping/holding – fixtures, veneers

Features/Benefits:

- High performance – powerful vacuum up to 28"Hg [948mbar]
- Compact & lightweight, rugged body construction
- Fast response – mounts close to vacuum point
- Efficient – minimal air consumption
- Safe operation
 - ~ No electricity needed at the pump
 - ~ High flow overcomes leakage – maintains a strong holding force
- Reliable – operates trouble free:
 - ~ Straight-through design, non-clogging
 - ~ No moving parts to wear or clog
 - ~ No flap valves to stick open
 - ~ No maintenance
 - ~ No downtime

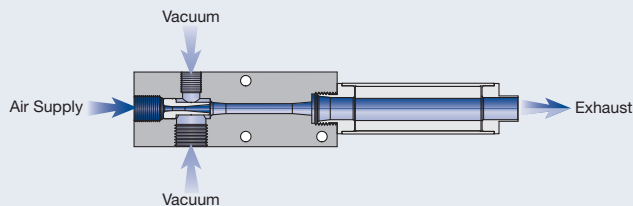
Pump Options:

- Vacuum gauge
- Silencers: ST-8B – straight through silencer allows dirt to pass through, without clogging
- 90° elbow attachment for silencers for compact space requirements
- G port threads for metric machines – products with an "I" prefix designates metric threads
- Choice of operating pressures to meet machine and factory air supply 80 PSI [5.5 BAR] standard, 60 PSI [4.0 BAR] optional.

Vacuum Pumps

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. The nozzle and diffuser combine to create a venturi vacuum cartridge.



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.

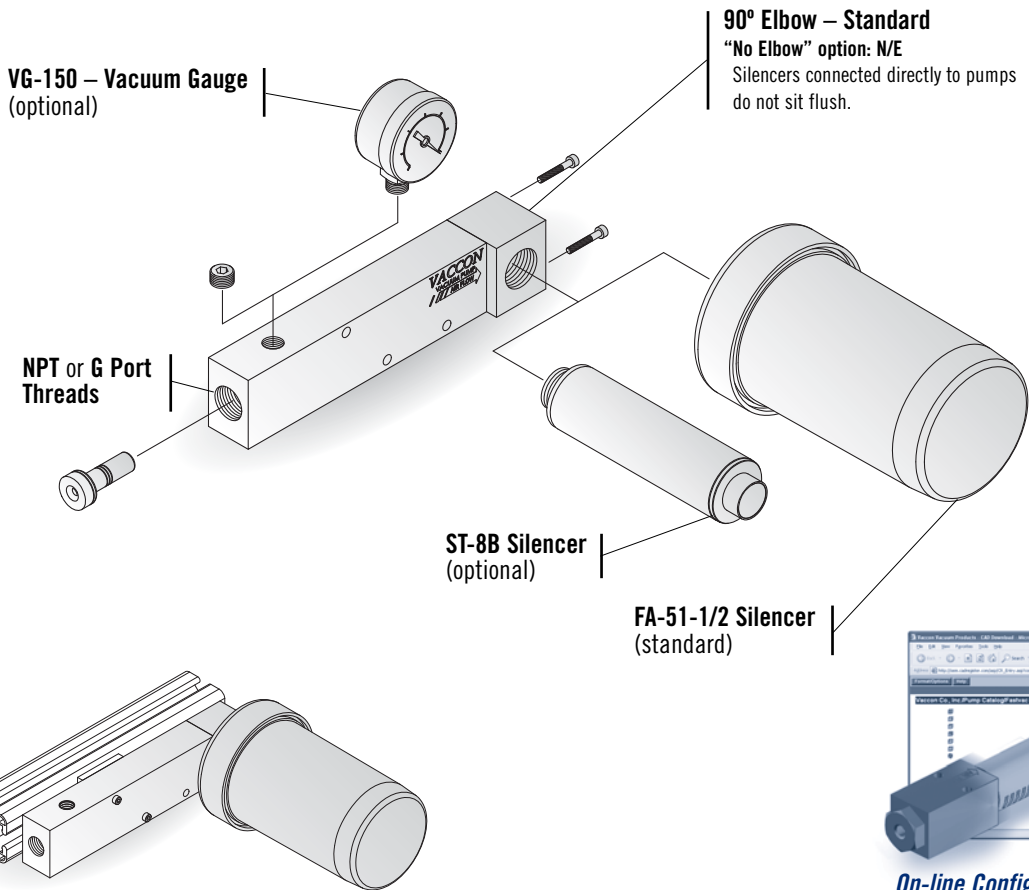
To download a complete set of drawings in 13 different CAD formats, please visit our website at www.vaccon.com

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

Modular Venturi Vacuum Pumps

VP90-300 & 350 (L, M, H) Fastvac 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.



VP90-300 & 350 pumps are Fractional and Metric T-Slot compatible. See EOAT Section.



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:

VP90-300 - M - 60 - ST8B

| 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] |

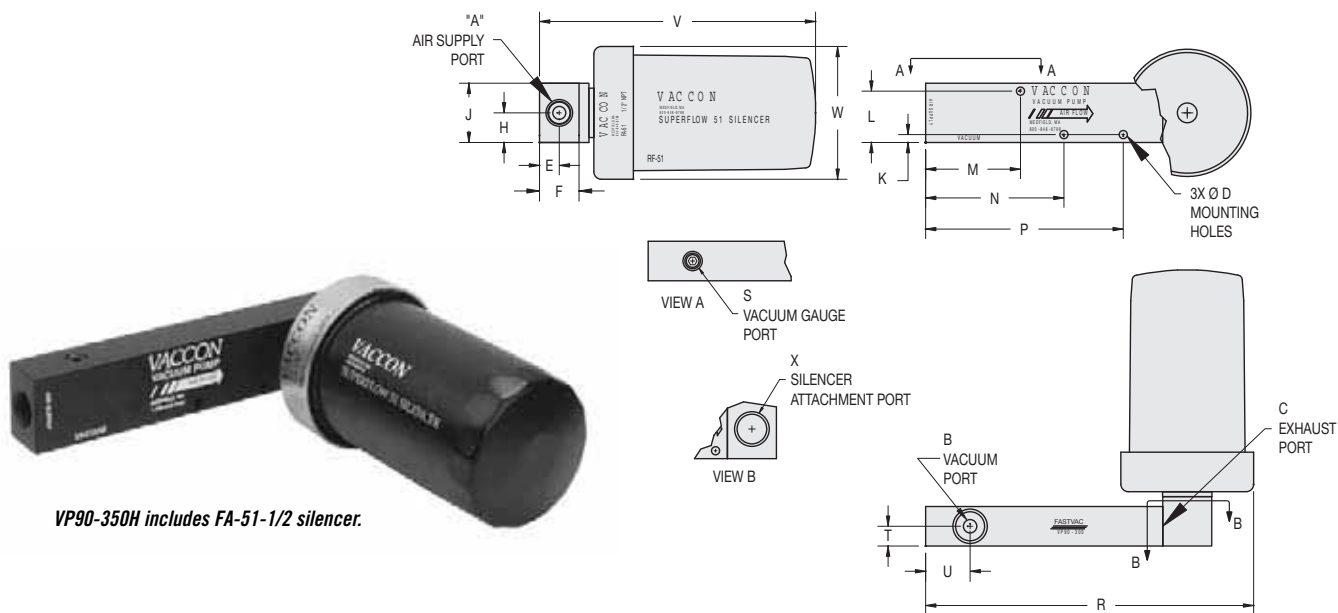
| P/N | Silencer |
|-----------|--------------------------------|
| | FA-51-1/2 High Flow (Standard) |
| N/E | FA-51-1/2 - No Elbow |
| ST-8B | Straight-Through With Elbow |
| N/E-ST-8B | Straight-Through Without Elbow |

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

| P/N | Vacuum Gauge |
|--------|--|
| VG-150 | Vaccon does not recommend shipping gauges attached to pumps. Please specify as a separate line item. |

For complete Performance Data, see page 153.

Standard: VP90-300 & VP90-350 (L, M, H) Pump



VP90-350H includes FA-51-1/2 silencer.

Specifications:

Weight 11b 12 oz [794g]
 Noise Level 70dB

| Model # | Imperial Dimensions (in.) | | | | | | | | | | | | | | | | | | | |
|-------------------|---------------------------|-----------|-----------|------|------|------|------|------|------|------|------|------|-------|-------|-----------|------|------|-------|------|-----------|
| VP90-300 or 350 | A | B | C | D | E | F | H | J | K | L | M | N | P | R | S | T | U | V | W | X |
| | 3/8 NPT F | 1/2 NPT F | 1/2 NPT F | 0.21 | 0.50 | 1.00 | 0.75 | 1.50 | 0.20 | 1.30 | 2.40 | 3.50 | 5.00 | 8.30 | 1/8 NPT F | 0.50 | 1.13 | 6.99 | 3.36 | 1/2 NPT F |
| Model # | Metric Dimensions (mm) | | | | | | | | | | | | | | | | | | | |
| I-VP90-300 or 350 | A | B | C | D | E | F | H | J | K | L | M | N | P | R | S | T | U | V | W | X |
| | G 3/8 | G 1/2 | G 1/2 | 5.2 | 12.7 | 25.4 | 19.1 | 38.1 | 5.1 | 33.0 | 61.0 | 88.9 | 127.0 | 210.8 | G 1/8 | 12.7 | 28.6 | 177.4 | 85.3 | G 1/2 |

VP90 Pump Standard Specifications:

Pump Material: Anodized Aluminum (For silencer material, see pages 235-239)
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

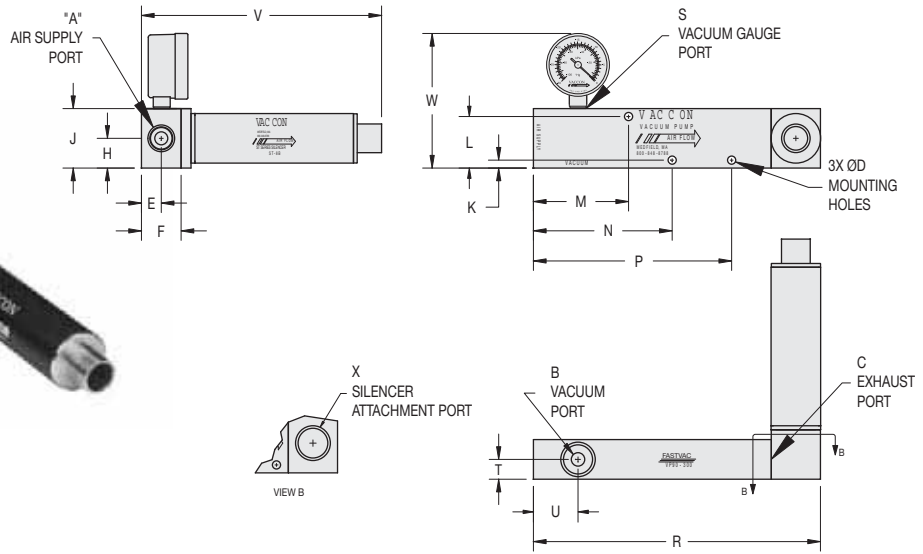
VP90 Operating and Installation Instructions:

Supply Line: Minimum recommended – 1/2" O.D. [12mm] OD tubing
Vacuum Line: Minimum recommended – 1/2" O.D. tubing – Preferred – 3/4" [22mm] for vacuum lines exceeding 3' [1M]
Vacuum Line Filtration: Typically filters are not required, if desired Vaccon recommends – VF500F. See page 282.
Mounting: Mounting holes accept #10-32 or M5 screws

VP90-300 & VP90-350 (L, M, H) Pump with optional ST-8B Silencer and VG-150 Vacuum Gauge



VP90-350H with ST-8B silencer and VG-150 vacuum gauge.



Specifications:

Weight 1lb 3 oz [539g]
Noise Level 73dB

| Model # | Imperial Dimensions (in.) | | | | | | | | | | | | | | | | | | | |
|--------------|---------------------------|-----------|-----------|------|------|------|------|------|------|------|------|------|-------|-------|-----------|------|------|-------|------|-----------|
| | A | B | C | D | E | F | H | J | K | L | M | N | P | R | S | T | U | V | W | X |
| VP90-ST-8B | 3/8 NPT F | 1/2 NPT F | 1/2 NPT F | 0.21 | 0.50 | 1.00 | 0.75 | 1.50 | 0.20 | 1.30 | 2.40 | 3.50 | 5.00 | 7.24 | 1/8 NPT F | 0.50 | 1.13 | 6.06 | 3.40 | 1/2 NPT F |
| Model # | Metric Dimensions (mm) | | | | | | | | | | | | | | | | | | | |
| | A | B | C | D | E | F | H | J | K | L | M | N | P | R | S | T | U | V | W | X |
| I-VP90-ST-8B | G 3/8 | G 1/2 | G 1/2 | 5.2 | 12.7 | 25.4 | 19.1 | 38.1 | 5.1 | 33.0 | 61.0 | 88.9 | 127.0 | 183.9 | G 1/8 | 12.7 | 28.6 | 153.8 | 86.4 | G 1/2 |