With high tech design, precision manufacturing, and quality testing, we can easily and economically change configuration, material, connections and performance to meet your exact specifications. Air-Vac offers four basic pump designs (AV, TD, MF, UV), with each providing a unique advantage.

“We Will Build You A Vacuum Source...”

Flexibility of Design, Perfect for OEM Applications

50 Years Specializing in Air-Operated Vacuum Generator Technology. Air-Vac has designed and manufactured a broad range of vacuum pumps because there are advantages to each design and one design is not suitable for every application.

Vacuum applications fall into the following categories:

**Vacuum Force Generators**

**AV, AVR, RAV, MF & UV Models:** Used for applications where the primary concern is the development of a high vacuum level and is measured in inches of mercury ("Hg).

Used with vacuum cups in pick-and-place applications. For removing air or gases from process vessels, chambers, tanks or other closed systems. Vacuum handling and positioning of parts, leak testing of various systems, vacuum forming of sheet metal or plastic parts, and labeling, packaging and paper feeding machinery.

*The UV “Ultra-Vac” design provides near perfect vacuum of 29.7"Hg. Used to evacuate chambers, degas liquids and in other processes requiring vacuum levels of 1/4"Hg absolute (8 Torr). Used as a first stage pump in applications requiring high vacuum reducing operating time of expensive high vacuum pumping systems.*

**Vacuum Flow Generators**

**TD & TDRH Models:** Used where the primary concern is the induced flow of atmospheric air and relatively low vacuum levels. Pumps are designed for dynamic performance and are measured in cubic feet per minute (scfm).

In addition, the straight through vacuum passage allows material to pass directly through the generator with no reduction of vacuum flow. Ideal for transporting or conveying solid materials in-line, vacuum removal of machined chips and loose scrap in fabricating dies, venturi wipes for wire drying, thread removal in textile machinery, air sampling in gas analyzing systems, and mixing of liquids and gases.

The exhaust flow is a combination of compressed air and vacuum flow and can be used in various applications including: drying and air cooling systems, fluttering and handling of paper, opening bags and cartons, and air blowing systems for removal of parts, scrap or foreign matter.

**Corrosion Resistant Stainless Steel Generators**

**HAVRSS, HAVSS & TDSS Models:** Used in a variety of industries and applications including: transport of abrasive materials, used in food processing because they withstand the aggressive chemicals used in sanitary wash downs. Having no electrical connections, they can be easily installed in hazardous explosion-proof areas, and used in high temperature applications.
How Does It Work?
Compressed air flows through a small circular opening to generate a high velocity. This air expands, resulting in decreased pressure to provide vacuum levels up to 27.5\"Hg. The vacuum port is perpendicular to the air supply.

- AVR Series are small and easy to install with a vacuum flow to 1.7 scfm
- AV Series are intermediate in size with a vacuum flow to 6.8 scfm
- RAV Series are larger in size with a higher vacuum flow up to 18.2 scfm

- HAV Series are manufactured from chemically resistant 316 stainless steel and are maintenance-free. Virtually indestructible from corrosive atmosphere and high temperature applications. They produce vacuum levels up to 27.5\"Hg.
  - HAVRSS Series provides a vacuum flow to 1.7 scfm
  - HAVSS Series provides a vacuum flow to 6.8 scfm.

- \textbf{HAVR} Model

Available are \textbf{"L" versions} that produce LOW vacuum levels with substantially lower rates of air consumption. Contact Air-Vac and indicate required \textquoteleft\textit{Hg} level, vacuum flow and operating pressure. Models easily configurable.

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Specifications</th>
<th>Air flow</th>
<th>Flange dia.</th>
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\* \textit{"A"} diameter of straight through vacuum passage

For more info visit airvacpumps.com
How Does It Work?
Compressed air flows through a small annular opening to generate a high velocity. This air expands into an unobstructed vacuum passage, allowing solid material to flow through the pump with no decrease in vacuum flow.

Three different TD Series are available with straight through vacuum passages.
- TD110 through TD320 units provide high, medium, and low vacuum levels with flow rates up to 11.3 scfm.
- TD110SS through TD500SS are made from chemically resistant 316 stainless steel. They provide vacuum levels up to 24.5”Hg with flow rates up to 33.0 scfm.
- TDRH380L through TDRH2000L provide low vacuum levels but high vacuum flows up to 128 scfm.

The TD Single Stage Design was primarily designed to provide a straight through vacuum passage to allow the transport of solid material with no reduction of vacuum flow.

Model No. Model No. Specifications

<table>
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<tr>
<th>Model No.</th>
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Supply pressure: 75 psig
For more info visit airvacpumps.com

Supply pressure: 75 psig
For more info visit airvacpumps.com

The UV Ultra Vac Design provides near perfect vacuum of 29.7”Hg.

How Does It Work?
The UV vacuum generator uses two venturis acting in tandem to generate very deep levels of vacuum. Compressed air flows into the two venturis. The exhaust from the smaller one is directed into the vacuum chamber of the larger venturi, which directs the entire flow of air into the atmosphere. Since the smaller venturi exhausts into a pressure chamber that is lower than atmospheric, it can attain a vacuum level not attainable by a conventional single stage vacuum generator.

Used to evacuate chambers, degas liquids and in other processes requiring vacuum levels of 1/4”Hg absolute (8Torr). Also used as the first stage pump in applications requiring high vacuum reducing operating time of expensive high vacuum pumping systems.
The MF Multi Stage Design provides high initial vacuum flow for fast evacuation. Multiple vacuum chambers insure minimum air consumption, providing low operating costs.

How Does It Work?
Energy from a single flow of high velocity air is used to maximum efficiency. Flow is forced through three venturi sections. Vacuum is created in three separate chambers. A common vacuum manifold connects to the three vacuum chambers. The result is high vacuum flow with low air consumption and fast evacuation.

MFL Series - “H60” and “M” versions produce HIGH vacuum levels (27.2”Hg) and vacuum flow rates to 19.5 scfm. The “VF” version produces MEDIUM vacuum levels and flow rates to 15.2 scfm, but with substantially lower rates of air consumption than the “H60” and “M” versions.

MFP Series - “H” version produces HIGH vacuum levels (27.2”Hg) and vacuum flow rates to 6.0 scfm. The “M” version produces MEDIUM vacuum levels and flow rates to 5.3 scfm, but with substantially lower rates of air consumption than the “H” version.

Also available are “L” version generators that produce LOW vacuum levels with substantially lower rates of air consumption. Contact Air-Vac and indicate required “Hg level, vacuum flow and operating pressure. Models are easily configurable.

For additional information on all vacuum generators, please visit airvacpumps.com
• Vacuum flow rates vs vacuum levels
• Time in seconds to evacuate 1 cubic foot to vacuum levels
• Complete model dimensions

Custom Shape Vacuum Generators and Vacuum Inserts

The flexibility of single stage vacuum generator technology is used with high tech design and precision manufacturing to build custom shaped vacuum generators to your specifications.

• Custom shapes incorporated as an integral part of your product:
  - designed smaller in size to fit into the tightest locations
  - changing configuration is easy and economical
  - small, lightweight and installed close to the where the vacuum is required.

• Specific vacuum performance to meet your requirements:
  - minimize air usage
  - set to your exact pressure

• Special fittings and materials:
  - fittings for air supply, vacuum and exhaust
  - sleeves can use o-rings or press fits when assembling to seal vacuum and compressed air passages
  - any machinable material
  - anodized aluminum in various colors
  - electropolishing for stainless steel, etc.
  - private labeling

Leading Designer/Manufacturer of OEM Air-Operated Vacuum Generators
• Over 50 years design experience, precision CNC manufacturing, and the ability to accurately measure vacuum performance allows us to easily provide special purpose vacuum generators.
• Air-Vac’s primary design objective is to achieve maximum vacuum with minimum consumption of compressed air.
• Every vacuum generator is tested upon completion to insure that it meets performance specifications.

Flexibility of Design
• Our “Flexibility of Design” strategy includes the ability to produce a generator with exactly the performance you want.
• Multiple vacuum levels are available to insure the lowest possible air usage.
• Our designers and manufacturing engineers are available to discuss specific applications and assist in selecting the proper vacuum generator.

Contact Air-Vac or your local Distributor

Air-Vac Engineering  airvacpumps.com
30 Progress Avenue  •  Seymour, CT 06483
Tel: 203.888.9900  •  Fax: 203.888.1145