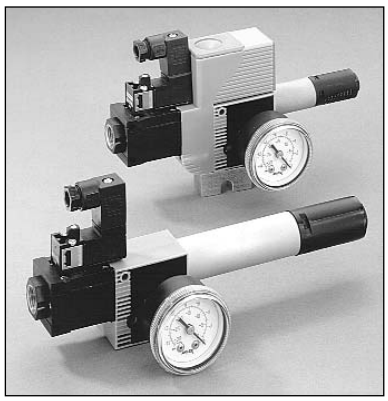
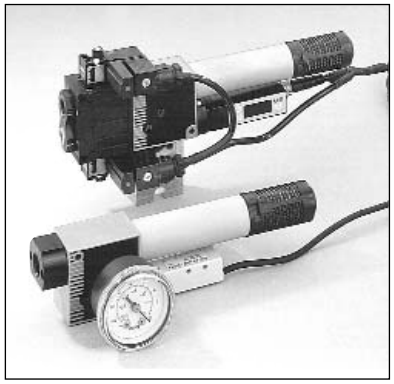
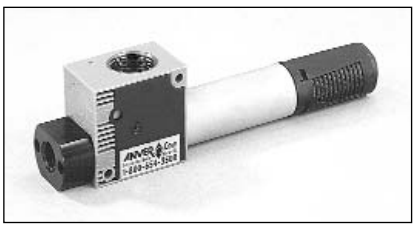


3

Section

Air Powered Vacuum Generators & Accessories





Air Vacuum Generators

Air Powered Vacuum Generators (Ejectors)

Air Powered Vacuum Generators (Ejectors or Venturis) are available from ANVER in various flow rates and vacuum generating capacities. This modular series allows remarkable flexibility in fulfilling a variety of applications. Each system uses compressed air to draw a vacuum with optional built-in electric or pneumatic control valves. The 'economizer' version conserves energy by using compressed air only when needed.

ANVER single stage venturi vacuum generators may be used anywhere that more conventional vacuum systems are used. Actually, several characteristics make these generators well suited for many tasks, including low cost, no maintenance, quiet operation, small size, light weight, and flow rates up to nearly 12 SCFM while generating up to 90% vacuum (27 in. Hg).

Single Stage vs. Multi-Stage Air Vacuum Generators

In general, multi-stage generators have been recommended for porous materials or anywhere a high flow rate and low vacuum is necessary. Grouping single stage type generators can achieve the same results. This configuration also adds an extra measure of safety by allowing separate control of each cup or series of cups. For most situations, the single stage generator is preferable to the multi-stage generator based on price, size, and maintenance.

Single Stage Air Vacuum Generators vs. Electric Vacuum Pumps

Electric powered vacuum pumps are presently used in many situations. However, using an air powered generator has many advantages, especially when compressed air is already available. Air power is more economical when intermittent vacuum is required. For many situations, choosing these single stage generators over electric vacuum pumps has many benefits, including price, size, noise of operation, and maintenance.

Advantages:

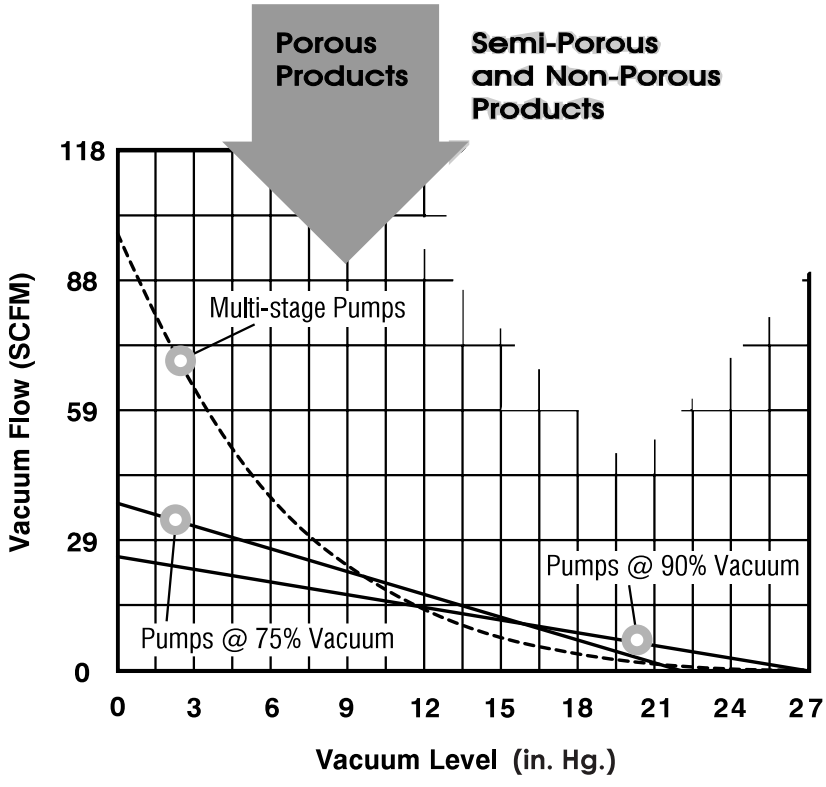
- **Excellent reliability**
- **Large capacity systems**
- **Compact**
- **Quiet operation**
- **Lightweight**
- **Rapid cycling**
- **No maintenance**
- **Leak proof, internal air connections**
- **Easy connection to existing compressed air network**
- **Explosion proof w/pneumatic controls**
- **Energy efficient 'economizer' version**
- **PLC connections possible**

Applications

- **Robotics**
- **Pick-and-Place**
- **Packaging - box and bag opening**
- **Packaging - filling containers**
- **Bottle Handling**
- **Light Metals (Foil) Handling**
- **Food Products - bagging**
- **Wooden furniture - lifting or handling**
- **Plastics - removing from molds**
- **Air quality sampling**
- **Liquid measuring and transferring**

and Many, Many More.....

When choosing a vacuum generator, factors to be considered are the required vacuum level, vacuum flow, and the ratio between them, generally referred to as vacuum characteristics. The chart below compares the general performance and application of the main types of air vacuum generators offered in today's market. Data reflects equivalent air consumption for each generator.



Air Powered Vacuum Generators &

Choosing A Generator - A Comparison of Features

Seconds To Evacuate 1 Cubic Foot

Vacuum (in. Hg)

Model	3	6	9	12	15	18	21	24	27
VR05	25.5	54.4	87.8	127.4	175.6	237.9	325.6	475.7	974.4
VR07	15.0	31.7	51.3	74.2	102.5	138.8	190.0	277.5	568.3
VR09	8.5	18.1	29.2	42.5	58.6	79.3	108.5	158.6	324.8
JB12H	4.2	9.1	14.7	21.2	29.2	39.6	54.4	79.3	162.5
JB15H	2.5	5.7	9.1	13.3	18.4	24.9	34.0	49.8	101.9
JB20H	1.7	3.4	5.4	7.9	10.8	14.7	20.1	29.4	60.3
JB25H	0.8	2.0	3.1	4.5	6.2	8.2	11.3	16.7	34.0
JB30H	0.8	1.4	2.5	3.7	4.8	6.8	9.1	13.3	27.2

Model	3	6	9	12	15	18	21	24	25
JV07	15.0	31.7	51.3	74.2	102.5	138.8	190.0	277.5	376.5
JV09	8.5	18.1	29.2	42.5	58.6	79.3	108.5	158.6	213.4

Model	3	6	9	12	15	18	21	22.5
JB12M	3.1	6.8	11.0	16.7	24.1	35.1	58.9	94.0
JB15M	2.0	4.0	6.5	9.9	14.2	20.7	34.8	55.8
JB20M	1.1	2.5	4.0	5.9	8.8	12.7	21.5	34.0
JB25M	0.8	1.7	2.5	4.0	5.7	8.2	13.6	21.8
JB30M	0.6	1.1	2.0	2.8	4.2	6.2	10.5	16.4

Standard Features

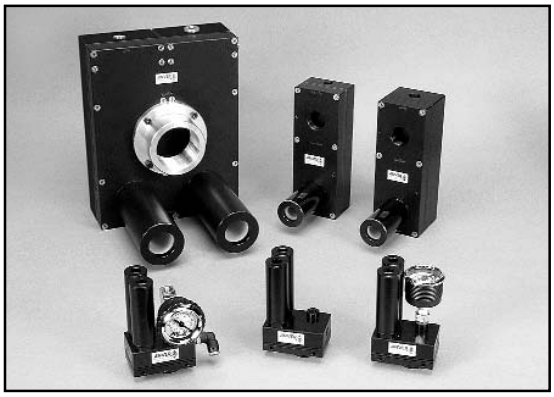
Model	JV	JVC	VR	JB	JBC	JBD	JR	JRC	JBDS	JBS	JECS	JEDS
Air Supply Port *	M5 4T**	M5 4T**	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT	¼"NPT
Vacuum Port *	M5 4T**	M5 4T**	M6 ⅛"NPT	½"NPT	½"NPT	½"NPT	½"NPT	½"NPT	½"NPT	½"NPT	½"NPT	½"NPT
Air Supply Valve	**N**	**Y**	N	N	Y	Y	N	Y	Y	N	Y	Y
Check Valve-Vacuum	**N**	**N**	N	N	N	N	N	N	Y	Y	Y	Y
Blow-off	**N**	N	N	N	N	Y	Y	Y	Y	Y	N	Y
Blow-off Valve	**N**	**N**	N	N	N	Y	N	N	Y	N	N	Y
Check Valve-Blow-off	**N**	**N**	N	N	N	N	N	N	Y	N	N	Y

** Adapters for different port sizes available*

*** 4T = 5/32" [4mm] type Push-connect fitting*

Vacuum Pumps and Vacuum Generators

MSP Series Multi-Stage Air Powered Vacuum Pumps

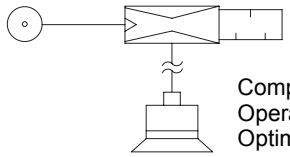


Usage:
ANVER MSP Series Multi-Stage Pneumatically-Driven Vacuum Pumps operate on the Venturi Principle. They are ideally designed for applications requiring high flows at moderate vacuum levels. MSP Vacuum Pumps provide vacuum levels down to 27 in. Hg, and flows to 340 SCFM. Their highly efficient operation make MSP Vacuum Pumps suitable for a wide range of applications, particularly in the Packaging and Material Handling Industries, as well as in the Industrial Automation and Laboratory environments.

Classic Style Vacuum Pump Offers High Flow at Moderate Vacuum with Low Noise Levels

Features:
- A good choice for High Flow at Moderate Vacuum Levels
- Minimum Space Requirements
- Economical Proven Design, Low Air Consumption
- Lightweight yet Precise Aluminum Construction with Brass Nozzles
- Quiet Operation as Each Pump is Supplied With Muffler
- All Vacuum Pumps from the MSP 025 model and larger include a Top Quality ANVER Vacuum Gauge as Standard
- "G" to "NPT" adapters provided where required

Specifications:
The below information is for only the basic vacuum generator with vacuum gauge and muffler. The vacuum control of these generators is served through a manual or automatic control valve situated on the compressed air supply line.



Compressed Air: 50 Micron, Filtered, Non-lubricated
Operating Temperature: -10 to 80°C (14 to 176°F)
Optimum Operating Pressure: 6 bar (87 psi)

ANVER Item No.	Max. Vacuum in. Hg (mm Hg)	Vacuum Flow SCFM (nl /min.)	Air Consumption SCFM (nl /min.)	Vacuum Flow at Vacuum Level SCFM (nl /min.)								
				0 Hg	3 Hg	6 Hg	9 Hg	12 Hg	15 Hg	18 Hg	21 Hg	24 Hg
MSP005	25 (635)	0.99 (28)	0.56 (16)	0.99 (28)	0.49 (14)	0.32 (9)	0.21 (6)	0.12 (3.4)	0.09 (2.6)	0.06 (1.7)	0.03 (0.9)	0.01 (0.3)
MSP010	25 (635)	1.98 (56)	1.13 (32)	1.98 (56)	0.99 (28)	0.64 (18)	0.42 (12)	0.24 (6.8)	0.18 (5.1)	0.12 (3.4)	0.06 (1.7)	0.02 (0.6)
MSP020	25 (635)	3.88 (110)	2.19 (60)	3.88 (110)	2.05 (58)	1.14 (32.3)	0.95 (26.9)	0.53 (15.0)	0.36 (10.2)	0.28 (7.9)	0.14 (4.0)	0.07 (2.0)
MSP020L	19.5 (495)	5.65 (160)	2.54 (72)	5.65 (160)	4.03 (114)	2.61 (74)	2.05 (58)	1.41 (40)	0.99 (28)	0.34 (9.6)	0.00 (0.0)	0.00 (0.0)
MSP025	27 (690)	10.60 (300)	3.35 (95)	10.59 (300)	7.41 (210)	4.98 (141)	2.47 (70)	1.77 (50)	1.38 (39)	0.99 (28)	0.67 (20)	0.42 (12)
MSP040L	19.5 (495)	16.95 (480)	7.63 (216)	16.95 (480)	12.08 (342)	7.84 (222)	6.14 (174)	4.24 (120)	2.97 (84)	1.02 (29)	0.00 (0.0)	0.00 (0.0)
MSP040M	27.8 (706)	9.53 (270)	5.09 (144)	9.53 (270)	5.71 (162)	4.73 (134)	3.53 (100)	2.61 (74)	1.77 (50)	1.20 (34)	0.20 (5.7)	0.08 (2.3)
MSP050	27 (690)	17.65 (500)	6.71 (190)	17.65 (500)	14.05 (398)	7.90 (224)	4.87 (138)	3.53 (100)	2.75 (78)	2.12 (60)	1.48 (42)	0.81 (23)
MSP100	27 (690)	31.70 (900)	13.41 (380)	31.77 (900)	28.1 (796)	15.18 (430)	9.74 (276)	7.06 (200)	5.51 (156)	4.24 (120)	2.97 (84)	1.62 (46)
MSP150	27 (690)	74.13 (2100)	24.71 (700)	74.13 (2100)	52.95 (1500)	34.60 (980)	18.36 (520)	12.71 (360)	10.59 (300)	7.59 (215)	4.94 (140)	2.97 (84)

3082301 ➡ This spec sheet was adapted for print from our website. Additional information and photos are available at www.anver.com.

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Vacuum Pumps and Vacuum Generators

MSP Series Multi-Stage Air Powered Vacuum Pumps

ANVER Item No.	Max. Vacuum in. Hg (mm Hg)	Vacuum Flow SCFM (nl /min.)	Air Consumption SCFM (nl /min.)	Vacuum Flow at Vacuum Level SCFM (nl /min.)								
				0 Hg	3 Hg	6 Hg	9 Hg	12 Hg	15 Hg	18 Hg	21 Hg	24 Hg
MSP200	27 (690)	112.96 (3200)	33.53 (950)	112.96 (3200)	79.07 (2240)	52.24 (1480)	26.48 (750)	18.71 (530)	14.83 (420)	11.30 (320)	7.41 (210)	4.41 (125)
MSP400	27 (690)	148.26 (4200)	49.42 (1400)	148.26 (4200)	105.90 (3000)	69.19 (1960)	36.71 (1040)	25.42 (720)	20.47 (580)	15.18 (430)	9.88 (280)	5.93 (168)
MSP400-S	27 (690)	148.26 (4200)	49.42 (1400)	148.26 (4200)	105.90 (3000)	69.19 (1960)	36.71 (1040)	25.42 (720)	20.47 (580)	15.18 (430)	9.88 (280)	5.93 (168)
MSP800	27 (690)	338.88 (9600)	101.66 (2880)	338.88 (9596)	236.51 (6700)	157.09 (4448)	79.07 (2239)	56.13 (1590)	44.48 (1260)	33.54 (950)	22.24 (630)	13.41 (380)

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