



The MSP Series Multi-Stage Pneumatically-Driven Vacuum Pumps operate on the Venturi Principle. These pumps are designed for applications requiring high flows at moderate vacuum levels. The MSP Series Pumps provide vacuum levels down to 27 in. Hg, and flows to 340 SCFM. The pumps' highly efficient operation makes them suitable for a wide range of applications, particularly in the packaging and material handling industries, as well as in industrial automation and laboratory environments.

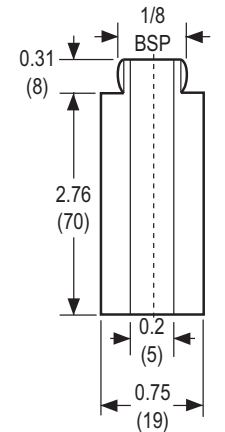
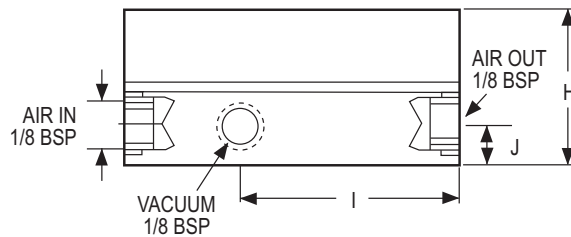
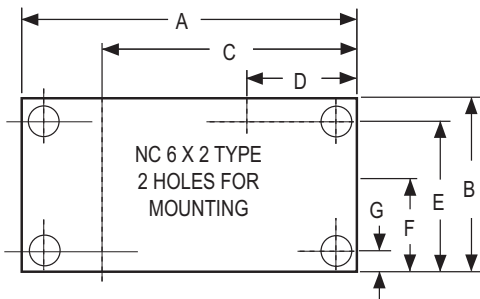
### Features

- High flow at moderate vacuum levels
- Minimum space requirements
- Proven economical design with low air consumption
- Lightweight and precise aluminum construction with brass nozzles
- Individual pump muffler to promote quiet operation
- All vacuum pumps from the MSP 025 Model and larger include top quality ANVER vacuum gauges as standard
- "G" to "NPT" adapters are available

### Specifications

The information below 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)

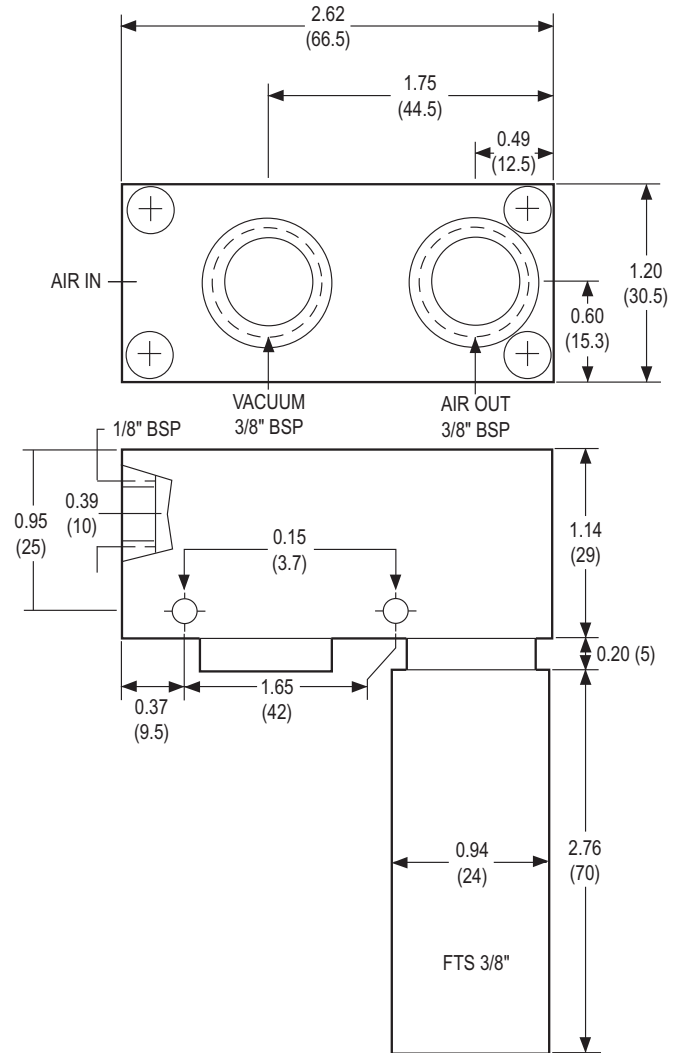


PUMP EXHAUST  
SILENCER

| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) | A in. (mm) | B in. (mm) | C in. (mm) | D in. (mm) | E in. (mm) | F in. (mm)   | G in. (mm) | H in. (mm)   |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|------------|------------|------------|------------|------------|--------------|------------|--------------|
| MSP005       | N/A                        | 26 (661)                   | 0.99 (28)                 | 0.56 (16)                     | 2.71 (69)  | 1.38 (35)  | 2.09 (53)  | 0.91 (23)  | 1.22 (31)  | 0.81 (20.50) | 0.16 (4)   | 0.81 (20.50) |
| MSP010       | N/A                        | 26 (661)                   | 1.98 (56)                 | 1.13 (32)                     | 2.71 (69)  | 1.38 (35)  | 2.09 (53)  | 0.91 (23)  | 1.22 (31)  | 0.81 (20.50) | 0.16 (4)   | 0.81 (20.50) |
| MSP020       | N/A                        | 26 (661)                   | 3.88 (110)                | 2.19 (60)                     | 2.71 (69)  | 1.65 (42)  | 2.09 (53)  | 0.91 (23)  | 1.5 (38)   | 0.83 (21)    | 0.16 (4)   | 0.83 (21)    |

### Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi

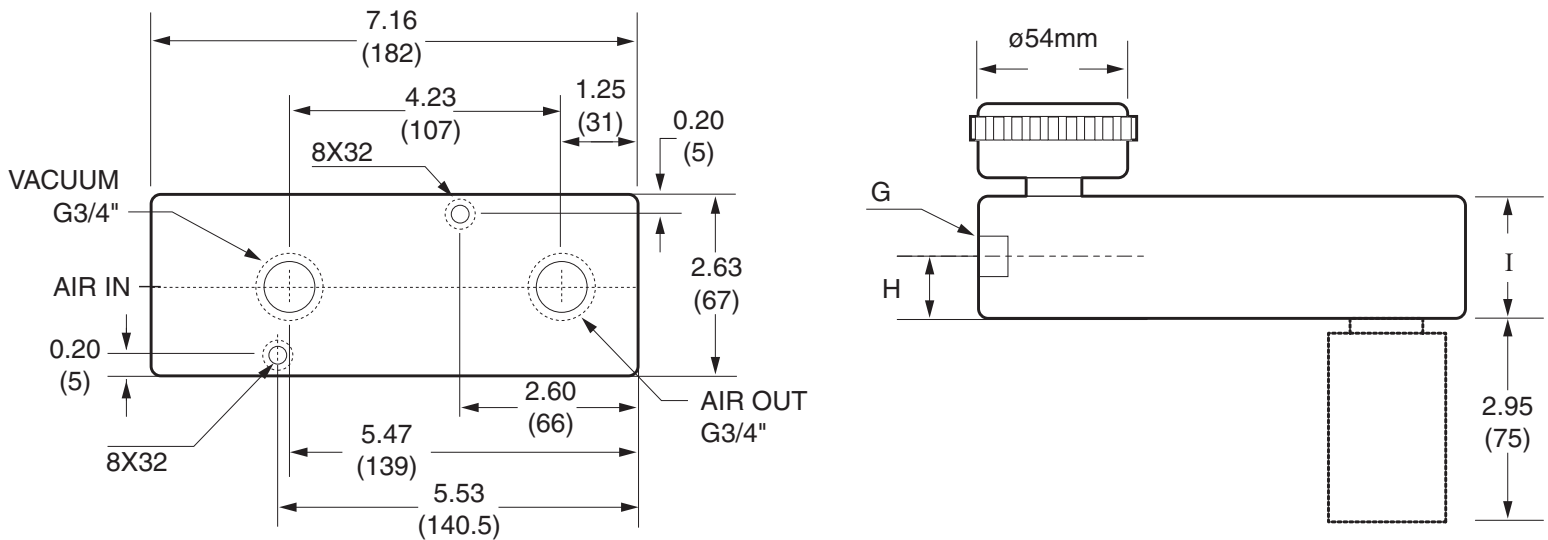
| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |           |             |             |            |             |            |            |            |
|--------------|-------------------------------|---|-----------|-------------|-------------|------------|-------------|------------|------------|------------|
|              |                               | 0 Hg                                      | 3 Hg      | 6 Hg        | 9 Hg        | 12 Hg      | 15 Hg       | 18 Hg      | 21 Hg      | 24 Hg      |
| MSP005       | 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       | 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       | 2.19 (62)                     | 3.88 (110)                                | 2.05 (58) | 1.14 (32.3) | 0.95 (26.9) | 0.53 (15)  | 0.36 (10.2) | 0.28 (7.9) | 0.14 (4)   | 0.07 (2)   |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|
| MSP020L      | N/A                        | 19.5 (495)                 | 5.65 (160)                | 2.54 (72)                     |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

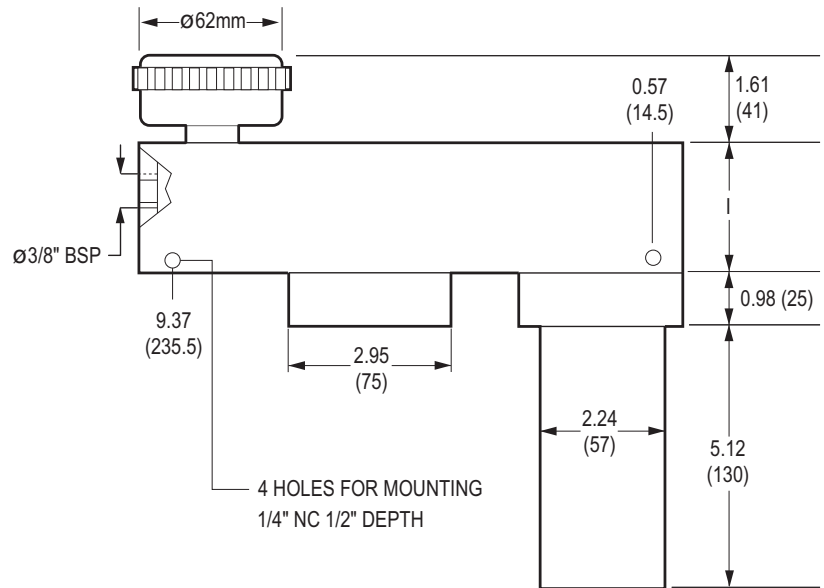
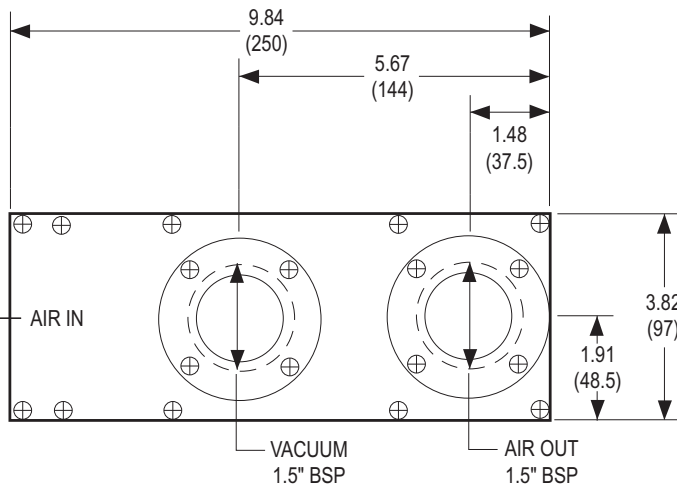
| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |            |           |           |           |           |            |       |       |
|--------------|-------------------------------|---|------------|-----------|-----------|-----------|-----------|------------|-------|-------|
|              |                               | 0 Hg                                      | 3 Hg       | 6 Hg      | 9 Hg      | 12 Hg     | 15 Hg     | 18 Hg      | 21 Hg | 24 Hg |
| MSP020L      | 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) | N/A   | N/A   |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) | G BSPP | H in. (mm) | I in. (mm) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|--------|------------|------------|
| MSP025       | MLD25 (M25)                | 27 (690)                   | 10.60 (300)               | 3.35 (95)                     | 1/4G   | 1.30 (33)  | 1.85 (47)  |
| MSP050       | MLD50 (M50)                | 27 (690)                   | 17.65 (500)               | 6.71 (190)                    | 1/4G   | 1.30 (33)  | 1.85 (47)  |
| MSP100       | MLD100 (M100)              | 27 (690)                   | 31.70 (900)               | 13.41 (380)                   | 3/8G   | 1.65 (42)  | 2.63 (67)  |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

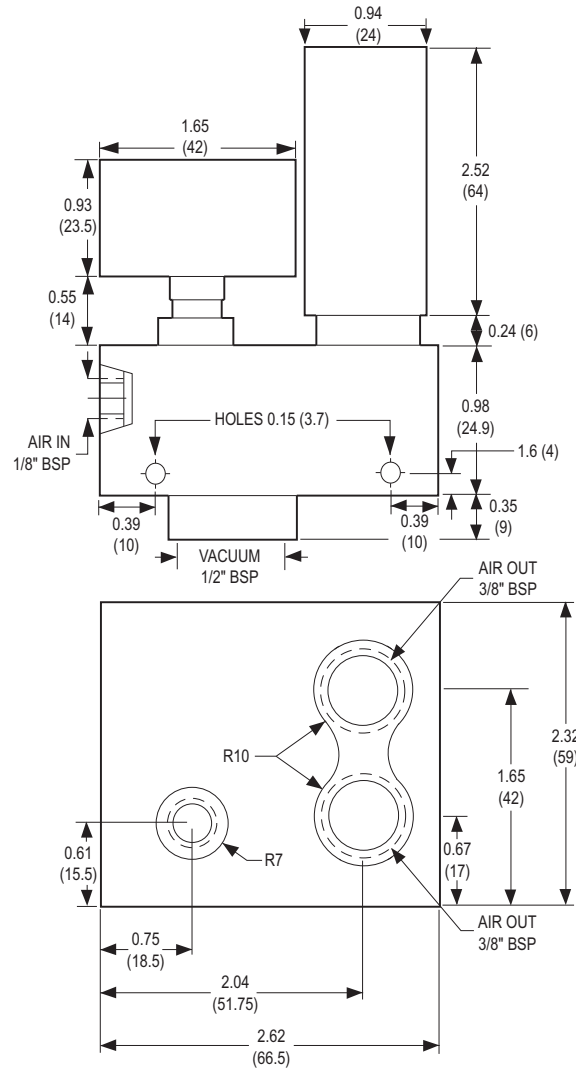
| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |             |             |            |            |            |            |           |           |
|--------------|-------------------------------|---|-------------|-------------|------------|------------|------------|------------|-----------|-----------|
|              |                               | 0 Hg                                      | 3 Hg        | 6 Hg        | 9 Hg       | 12 Hg      | 15 Hg      | 18 Hg      | 21 Hg     | 24 Hg     |
| MSP025       | 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) |
| MSP050       | 6.7 (190)                     | 17.65 (500)                               | 14.05 (398) | 7.9 (224)   | 4.87 (138) | 3.53 (100) | 2.75 (78)  | 2.12 (60)  | 1.48 (42) | 0.81 (23) |
| MSP100       | 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) |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) | I in. (mm) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|------------|
| MSP150       | N/A                        | 27 (690)                   | 74.13 (2100)              | 24.71 (700)                   | 3.39 (86)  |
| MSP200       | MLL200<br>31.01.056U       | 27 (690)                   | 112.96 (3200)             | 33.53 (950)                   | 2.56 (65)  |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

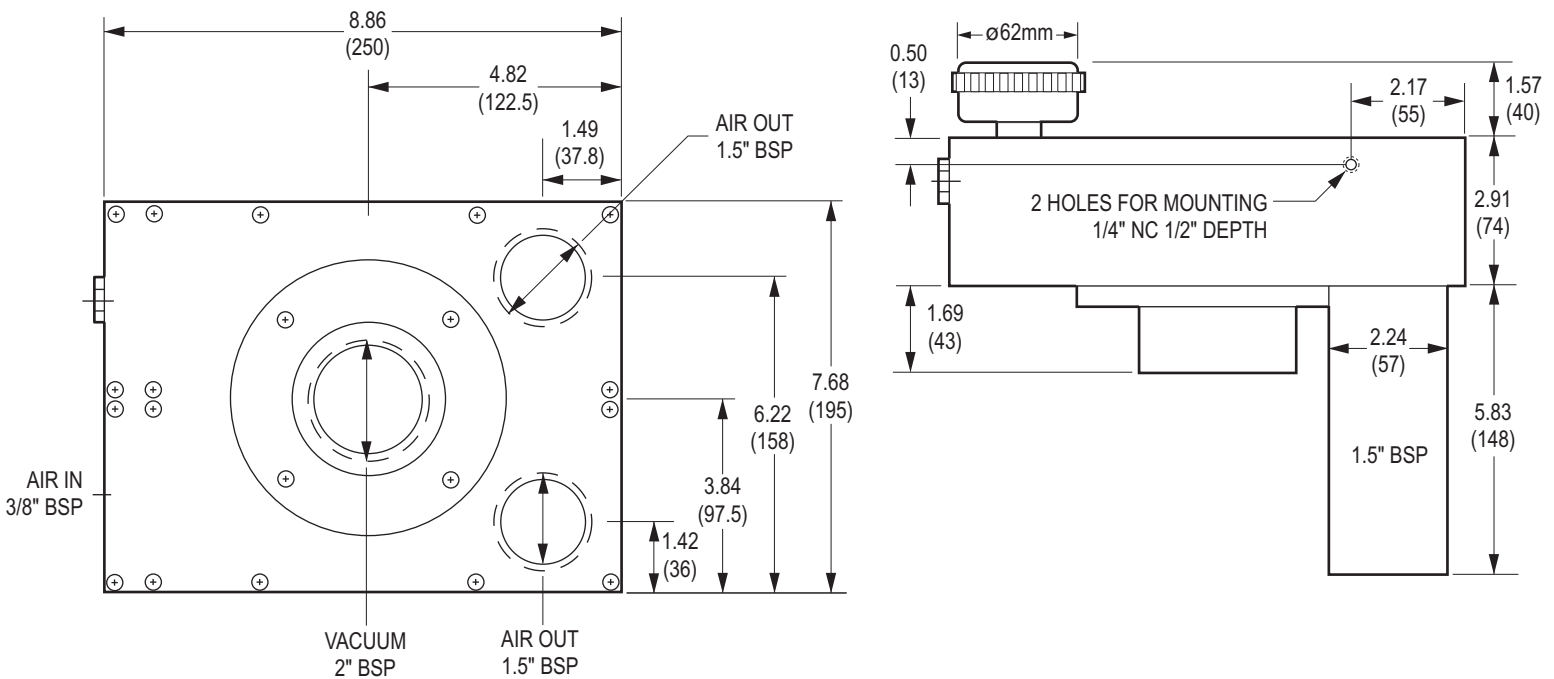
| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |              |              |             |             |             |            |            |            |
|--------------|-------------------------------|---|--------------|--------------|-------------|-------------|-------------|------------|------------|------------|
|              |                               | 0 Hg                                      | 3 Hg         | 6 Hg         | 9 Hg        | 12 Hg       | 15 Hg       | 18 Hg      | 21 Hg      | 24 Hg      |
| MSP150       | 24.71 (700)                   | 74.13 (2100)                              | 52.95 (1500) | 34.6 (980)   | 18.36 (520) | 12.71 (360) | 10.59 (300) | 7.59 (215) | 4.94 (140) | 2.97 (84)  |
| MSP200       | 33.54 (950)                   | 112.96 (3200)                             | 79.07 (2240) | 52.24 (1480) | 26.48 (750) | 18.71 (530) | 14.83 (420) | 11.3 (320) | 7.41 (210) | 4.41 (125) |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) | A in. (mm) | B in. (mm) | C in. (mm) | D in. (mm) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|------------|------------|------------|------------|
| MSP040M      | N/A                        | 27.8 (706)                 | 9.53 (270)                | 5.09 (144)                    | 0.37 (9.5) | 0.39 (10)  | 1.38 (35)  | 1.77 (45)  |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

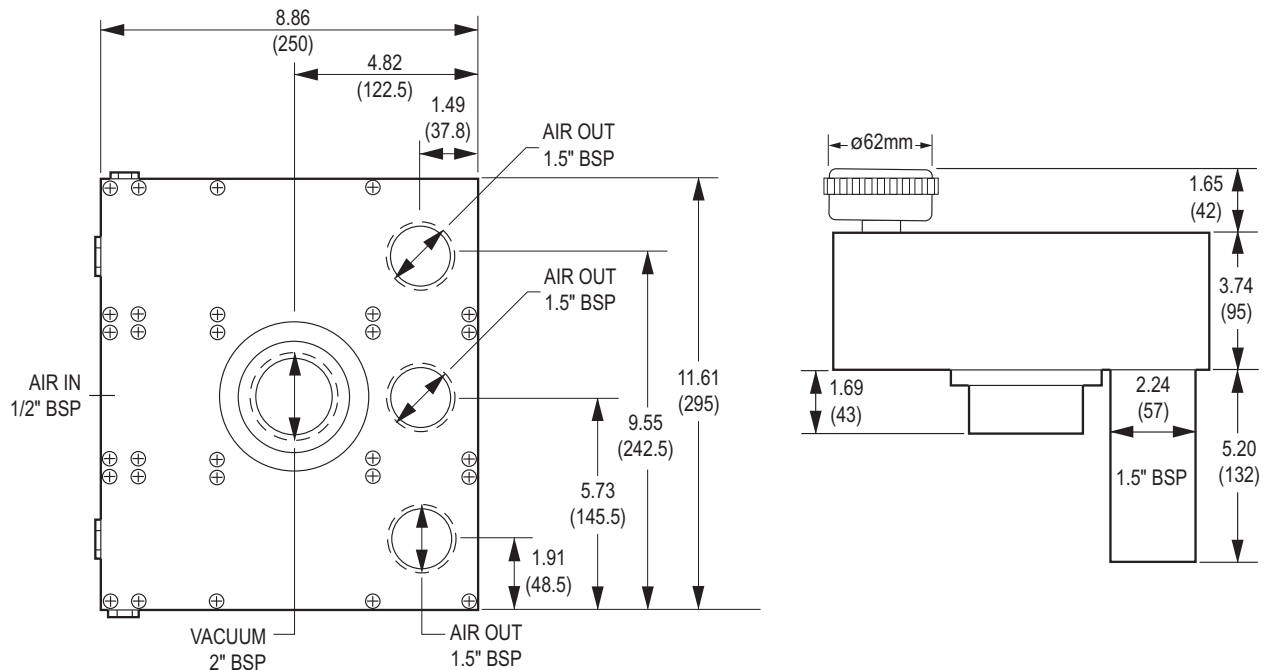
| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |            |            |            |           |           |          |           |            |
|--------------|-------------------------------|---|------------|------------|------------|-----------|-----------|----------|-----------|------------|
|              |                               | 0 Hg                                      | 3 Hg       | 6 Hg       | 9 Hg       | 12 Hg     | 15 Hg     | 18 Hg    | 21 Hg     | 24 Hg      |
| MSP040M      | 5.09 (144)                    | 9.53 (270)                                | 5.71 (162) | 4.73 (134) | 3.53 (100) | 2.61 (74) | 1.77 (50) | 1.2 (34) | 0.2 (5.7) | 0.08 (2.3) |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|
| MSP400       | MLL400<br>31.01.057U       | 27 (690)                   | 148.26 (4200)             | 49.42 (1400)                  |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |              |              |              |             |             |             |            |            |
|--------------|-------------------------------|---|--------------|--------------|--------------|-------------|-------------|-------------|------------|------------|
|              |                               | 0 Hg                                      | 3 Hg         | 6 Hg         | 9 Hg         | 12 Hg       | 15 Hg       | 18 Hg       | 21 Hg      | 24 Hg      |
| MSP400       | 49.42 (1400)                  | 148.26 (4200)                             | 105.9 (3000) | 69.19 (1960) | 36.71 (1040) | 25.42 (720) | 20.47 (580) | 15.18 (430) | 9.88 (280) | 5.93 (168) |



| Model Number | Equivalent P-Series Number | Max. Vacuum in. Hg (mm Hg) | Vacuum Flow SCFM (l/min.) | Air Consumption SCFM (l/min.) |
|--------------|----------------------------|----------------------------|---------------------------|-------------------------------|
| MSP800       | MLL800<br>31.01.058U       | 27 (690)                   | 338.88 (9600)             | 101.66 (2880)                 |

**Air Consumption and Vacuum Flow at Different Vacuum Levels (-Hg) at 87 psi**

| Model Number | Air Consumption SCFM (l/min.) | Vacuum Flow at Vacuum Level SCFM (l/min.) |               |               |              |              |              |             |             |             |
|--------------|-------------------------------|---|---------------|---------------|--------------|--------------|--------------|-------------|-------------|-------------|
|              |                               | 0 Hg                                      | 3 Hg          | 6 Hg          | 9 Hg         | 12 Hg        | 15 Hg        | 18 Hg       | 21 Hg       | 24 Hg       |
| MSP800       | 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) |