

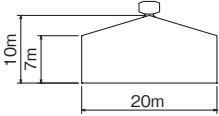
### SVM-H型連続型ベンチレーター算出法

長さを求める場合(型式が決められている)

$$L = \frac{aV}{60Q}$$

L：連続型ベンチレーターの全長(m)  
a：建物1時間当たりの換気回数  
Q：連続型ベンチレーターの1m当たりの排気量(m³/min)  
V：建物の容積(m³)

■例： 鑄造工場

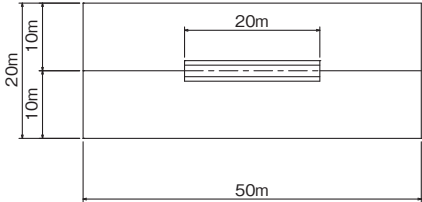


使用型式を求める場合(長さが決められている)

$$Q = \frac{aV}{60L}$$

Q：連続型ベンチレーターの1m当たりの排気量(m³/min)  
a：建物1時間当たりの換気回数  
L：連続型ベンチレーターの全長  
V：建物の容積(m³)

■例： 機械工場



a=20回/h V=8,500m³ 設置高=10m  
室内外温度差=5℃ 外気風速=3m/s  
SVM-1200Hで上記の条件の場合  
P.22性能表より、Q=85.8m³/min

$$L = \frac{20 \times 8,500}{60 \times 85.8} \approx 33\text{m}$$

長さ33mが求められます。

a=10回/h V=8,500m³ 設置高=10m  
室内外温度差=5℃ 外気風速=3m/s  
L=20mで上記の条件の場合

$$Q = \frac{10 \times 8,500}{60 \times 20} \approx 70.8\text{m}^3/\text{min}$$

よってP.22性能表よりSVM-1000Hの  
71.5m³/minに近い数値となり、  
SVM-1000Hが適当となります。

### SVM-H(排煙型) 風量性能表 (1m当たりm³/min)

| 型式        |   | 室内外温度差<br>(℃) | 設置高<br>(m) | 外気<br>風速<br>(m/s) | Δt=3℃ |       |       |       |       |       | Δt=5℃ |       |       |       |       |       | Δt=10℃ |       |       |       |       |       | Δt=15℃ |       |       |       |       |       |
|-----------|---|---------------|------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
|           |   |               |            |                   | 5     | 10    | 15    | 20    | 25    | 30    | 5     | 10    | 15    | 20    | 25    | 30    | 5      | 10    | 15    | 20    | 25    | 30    | 5      | 10    | 15    | 20    | 25    | 30    |
| SVM-400H  | 1 |               |            |                   | 12.9  | 17.0  | 20.2  | 23.0  | 25.5  | 27.8  | 15.7  | 21.2  | 25.5  | 29.2  | 32.5  | 35.4  | 21.2   | 29.2  | 35.4  | 40.7  | 45.4  | 49.7  | 25.5   | 35.4  | 43.1  | 49.7  | 55.4  | 60.6  |
|           | 2 |               |            |                   | 17.5  | 20.6  | 23.4  | 25.8  | 28.1  | 30.2  | 19.6  | 24.2  | 28.1  | 31.5  | 34.5  | 37.3  | 24.2   | 31.5  | 37.3  | 42.4  | 46.9  | 51.0  | 28.1   | 37.3  | 44.7  | 51.0  | 56.6  | 61.8  |
|           | 3 |               |            |                   | 23.1  | 25.6  | 27.9  | 30.0  | 31.9  | 33.8  | 24.8  | 28.6  | 31.9  | 34.9  | 37.7  | 40.3  | 28.6   | 34.9  | 40.3  | 45.0  | 49.3  | 53.2  | 31.9   | 40.3  | 47.2  | 53.2  | 58.6  | 63.6  |
|           | 4 |               |            |                   | 29.3  | 31.3  | 33.2  | 34.9  | 36.6  | 38.2  | 30.6  | 33.8  | 36.6  | 39.3  | 41.8  | 44.1  | 33.8   | 39.3  | 44.1  | 48.5  | 52.5  | 56.2  | 36.6   | 44.1  | 50.5  | 56.2  | 61.3  | 66.1  |
|           | 5 |               |            |                   | 35.7  | 37.3  | 38.9  | 40.4  | 41.9  | 43.3  | 36.8  | 39.4  | 41.9  | 44.3  | 46.5  | 48.6  | 39.4   | 44.3  | 48.6  | 52.6  | 56.3  | 59.8  | 41.9   | 48.6  | 54.5  | 59.8  | 64.6  | 69.1  |
| SVM-450H  | 1 |               |            |                   | 14.5  | 19.1  | 22.8  | 25.9  | 28.7  | 31.3  | 17.7  | 23.8  | 28.7  | 32.8  | 36.5  | 39.9  | 23.8   | 32.8  | 39.9  | 45.8  | 51.1  | 55.9  | 28.7   | 39.9  | 48.5  | 55.9  | 62.3  | 68.2  |
|           | 2 |               |            |                   | 19.7  | 23.2  | 26.3  | 29.1  | 31.6  | 33.9  | 22.1  | 27.3  | 31.6  | 35.4  | 38.8  | 42.0  | 27.3   | 35.4  | 42.0  | 47.7  | 52.8  | 57.4  | 31.6   | 42.0  | 50.3  | 57.4  | 63.7  | 69.5  |
|           | 3 |               |            |                   | 26.0  | 28.8  | 31.4  | 33.7  | 35.9  | 38.0  | 27.9  | 32.2  | 35.9  | 39.3  | 42.4  | 45.3  | 32.2   | 39.3  | 45.3  | 50.7  | 55.5  | 59.9  | 35.9   | 45.3  | 53.1  | 59.9  | 66.0  | 71.5  |
|           | 4 |               |            |                   | 33.0  | 35.2  | 37.3  | 39.3  | 41.2  | 43.0  | 34.5  | 38.0  | 41.2  | 44.2  | 47.0  | 49.6  | 38.0   | 44.2  | 49.6  | 54.5  | 59.0  | 63.2  | 41.2   | 49.6  | 56.8  | 63.2  | 69.0  | 74.3  |
|           | 5 |               |            |                   | 40.1  | 42.0  | 43.8  | 45.5  | 47.2  | 48.7  | 41.4  | 44.4  | 47.2  | 49.8  | 52.3  | 54.7  | 44.4   | 49.8  | 54.7  | 59.2  | 63.3  | 67.2  | 47.2   | 54.7  | 61.3  | 67.2  | 72.7  | 77.8  |
| SVM-500H  | 1 |               |            |                   | 16.2  | 21.2  | 25.3  | 28.8  | 31.9  | 34.7  | 19.7  | 26.5  | 31.9  | 36.5  | 40.6  | 44.3  | 26.5   | 36.5  | 44.3  | 50.9  | 56.8  | 62.1  | 31.9   | 44.3  | 53.9  | 62.1  | 69.3  | 75.8  |
|           | 2 |               |            |                   | 21.8  | 25.8  | 29.2  | 32.3  | 35.1  | 37.7  | 24.6  | 30.3  | 35.1  | 39.3  | 43.2  | 46.7  | 30.3   | 39.3  | 46.7  | 53.0  | 58.6  | 63.8  | 35.1   | 46.7  | 55.9  | 63.8  | 70.8  | 77.2  |
|           | 3 |               |            |                   | 28.9  | 32.0  | 34.9  | 37.5  | 39.9  | 42.2  | 31.0  | 35.7  | 39.9  | 43.7  | 47.1  | 50.4  | 35.7   | 43.7  | 50.4  | 56.3  | 61.6  | 66.5  | 39.9   | 50.4  | 59.0  | 66.5  | 73.3  | 79.5  |
|           | 4 |               |            |                   | 36.6  | 39.1  | 41.5  | 43.7  | 45.8  | 47.8  | 38.3  | 42.2  | 45.8  | 49.1  | 52.2  | 55.2  | 42.2   | 49.1  | 55.2  | 60.6  | 65.6  | 70.2  | 45.8   | 55.2  | 63.1  | 70.2  | 76.7  | 82.6  |
|           | 5 |               |            |                   | 44.6  | 46.7  | 48.7  | 50.6  | 52.4  | 54.2  | 46.0  | 49.3  | 52.4  | 55.3  | 58.1  | 60.7  | 49.3   | 55.3  | 60.7  | 65.7  | 70.4  | 74.7  | 52.4   | 60.7  | 68.1  | 74.7  | 80.8  | 86.4  |
| SVM-600H  | 1 |               |            |                   | 19.4  | 25.5  | 30.3  | 34.5  | 38.3  | 41.7  | 23.6  | 31.8  | 38.3  | 43.8  | 48.7  | 53.2  | 31.8   | 43.8  | 53.2  | 61.1  | 68.1  | 74.5  | 38.3   | 53.2  | 64.7  | 74.5  | 83.1  | 90.9  |
|           | 2 |               |            |                   | 26.2  | 31.0  | 35.1  | 38.8  | 42.1  | 45.3  | 29.5  | 36.4  | 42.1  | 47.2  | 51.8  | 56.0  | 36.4   | 47.2  | 56.0  | 63.6  | 70.4  | 76.5  | 42.1   | 56.0  | 67.1  | 76.5  | 85.0  | 92.6  |
|           | 3 |               |            |                   | 34.7  | 38.4  | 41.8  | 45.0  | 47.9  | 50.7  | 37.2  | 42.9  | 47.9  | 52.4  | 56.6  | 60.5  | 42.9   | 52.4  | 60.5  | 67.5  | 74.0  | 79.9  | 47.9   | 60.5  | 70.8  | 79.9  | 88.0  | 95.4  |
|           | 4 |               |            |                   | 43.9  | 46.9  | 49.8  | 52.4  | 55.0  | 57.4  | 46.0  | 50.7  | 55.0  | 58.9  | 62.7  | 66.2  | 50.7   | 58.9  | 66.2  | 72.7  | 78.7  | 84.3  | 55.0   | 66.2  | 75.8  | 84.3  | 92.0  | 99.1  |
|           | 5 |               |            |                   | 53.5  | 56.0  | 58.4  | 60.7  | 62.9  | 65.0  | 55.2  | 59.2  | 62.9  | 66.4  | 69.7  | 72.9  | 59.2   | 66.4  | 72.9  | 78.9  | 84.4  | 89.6  | 62.9   | 72.9  | 81.7  | 89.6  | 96.9  | 103.7 |
| SVM-750H  | 1 |               |            |                   | 24.2  | 31.8  | 37.9  | 43.2  | 47.8  | 52.1  | 29.5  | 39.7  | 47.8  | 54.7  | 60.9  | 66.4  | 39.7   | 54.7  | 66.4  | 76.4  | 85.1  | 93.1  | 47.8   | 66.4  | 80.9  | 93.1  | 103.9 | 113.7 |
|           | 2 |               |            |                   | 32.8  | 38.7  | 43.9  | 48.5  | 52.7  | 56.6  | 36.8  | 45.4  | 52.7  | 59.0  | 64.7  | 70.0  | 45.4   | 59.0  | 70.0  | 79.5  | 88.0  | 95.7  | 52.7   | 70.0  | 83.8  | 95.7  | 106.2 | 115.8 |
|           | 3 |               |            |                   | 43.4  | 48.0  | 52.3  | 56.2  | 59.9  | 63.3  | 46.5  | 53.6  | 59.9  | 65.5  | 70.7  | 75.6  | 53.6   | 65.5  | 75.6  | 84.4  | 92.4  | 99.8  | 59.9   | 75.6  | 88.5  | 99.8  | 110.0 | 119.2 |
|           | 4 |               |            |                   | 54.9  | 58.7  | 62.2  | 65.5  | 68.7  | 71.7  | 57.5  | 63.3  | 68.7  | 73.7  | 78.3  | 82.7  | 63.3   | 73.7  | 82.7  | 90.9  | 98.4  | 105.3 | 68.7   | 82.7  | 94.7  | 105.3 | 115.0 | 123.9 |
|           | 5 |               |            |                   | 66.9  | 70.0  | 73.0  | 75.8  | 78.6  | 81.2  | 69.0  | 73.9  | 78.6  | 83.0  | 87.1  | 91.1  | 73.9   | 83.0  | 91.1  | 98.6  | 105.5 | 112.0 | 78.6   | 91.1  | 102.1 | 112.0 | 121.2 | 129.6 |
| SVM-900H  | 1 |               |            |                   | 29.1  | 38.2  | 45.5  | 51.8  | 57.4  | 62.5  | 35.4  | 47.7  | 57.4  | 65.7  | 73.0  | 79.7  | 47.7   | 65.7  | 79.7  | 91.6  | 102.2 | 111.7 | 57.4   | 79.7  | 97.0  | 111.7 | 124.7 | 136.4 |
|           | 2 |               |            |                   | 39.3  | 46.5  | 52.6  | 58.2  | 63.2  | 67.9  | 44.2  | 54.5  | 63.2  | 70.8  | 77.7  | 84.0  | 54.5   | 70.8  | 84.0  | 95.4  | 105.5 | 114.8 | 63.2   | 84.0  | 100.6 | 114.8 | 127.4 | 138.9 |
|           | 3 |               |            |                   | 52.1  | 57.7  | 62.7  | 67.4  | 71.8  | 76.0  | 55.9  | 64.3  | 71.8  | 78.6  | 84.9  | 90.7  | 64.3   | 78.6  | 90.7  | 101.3 | 110.9 | 119.8 | 71.8   | 90.7  | 106.2 | 119.8 | 131.9 | 143.1 |
|           | 4 |               |            |                   | 65.9  | 70.4  | 74.6  | 78.6  | 82.4  | 86.1  | 68.9  | 76.0  | 82.4  | 88.4  | 94.0  | 99.3  | 76.0   | 88.4  | 99.3  | 109.1 | 118.1 | 126.4 | 82.4   | 99.3  | 113.7 | 126.4 | 138.0 | 148.7 |
|           | 5 |               |            |                   | 80.3  | 84.0  | 87.6  | 91.0  | 94.3  | 97.5  | 82.8  | 88.7  | 94.3  | 99.6  | 104.6 | 109.3 | 88.7   | 99.6  | 109.3 | 118.3 | 126.6 | 134.5 | 94.3   | 109.3 | 122.5 | 134.5 | 145.4 | 155.6 |
| SVM-1000H | 1 |               |            |                   | 32.3  | 42.4  | 50.6  | 57.5  | 63.8  | 69.5  | 39.3  | 53.0  | 63.8  | 73.0  | 81.2  | 88.6  | 53.0   | 73.0  | 88.6  | 101.8 | 113.5 | 124.1 | 63.8   | 88.6  | 107.8 | 124.1 | 138.5 | 151.6 |
|           | 2 |               |            |                   | 43.7  | 51.6  | 58.5  | 64.6  | 70.2  | 75.4  | 49.1  | 60.6  | 70.2  | 78.7  | 86.3  | 93.3  | 60.6   | 78.7  | 93.3  | 106.0 | 117.3 | 127.6 | 70.2   | 93.3  | 111.8 | 127.6 | 141.6 | 154.4 |
|           | 3 |               |            |                   | 57.9  | 64.1  | 69.7  | 74.9  | 79.8  | 84.4  | 62.1  | 71.5  | 79.8  | 87.4  | 94.3  | 100.8 | 71.5   | 87.4  | 100.8 | 112.6 | 123.3 | 133.1 | 79.8   | 100.8 | 118.0 | 133.1 | 146.6 | 159.0 |
|           | 4 |               |            |                   | 73.2  | 78.2  | 82.9  | 87.4  | 91.6  | 95.6  | 76.6  | 84.4  | 91.6  | 98.2  | 104.4 | 110.3 | 84.4   | 98.2  | 110.3 | 121.2 | 131.2 | 140.5 | 91.6   | 110.3 | 126.3 | 140.5 | 153.3 | 165.2 |
|           | 5 |               |            |                   | 89.2  | 93.3  | 97.3  | 101.1 | 104.8 | 108.3 | 92.0  | 98.6  | 104.8 | 110.6 | 116.2 | 121.5 | 98.6   | 110.6 | 121.5 | 131.5 | 140.7 | 149.4 | 104.8  | 121.5 | 136.2 | 149.4 | 161.6 | 172.9 |
| SVM-1200H | 1 |               |            |                   | 38.8  | 50.9  | 60.7  | 69.1  | 76.5  | 83.3  | 47.2  | 63.6  | 76.5  | 87.6  | 97.4  | 106.3 | 63.6   | 87.6  | 106.3 | 122.2 | 136.2 | 149.0 | 76.5   | 106.3 | 129.4 | 149.0 | 166.2 | 181.9 |
|           | 2 |               |            |                   | 52.4  | 61.9  | 70.2  | 77.5  | 84.3  | 90.5  | 58.9  | 72.7  | 84.3  | 94.4  | 103.6 | 112.0 | 72.7   | 94.4  | 112.0 | 127.2 | 140.7 | 153.1 | 84.3   | 112.0 | 134.1 | 153.1 | 169.9 | 185.3 |
|           | 3 |               |            |                   | 69.4  | 76.9  | 83.7  | 89.9  | 95.8  | 101.3 | 74.5  | 85.8  | 95.8  | 104.8 | 113.2 | 120.9 | 85.8   | 104.8 | 120.9 | 135.1 | 147.9 | 159.7 | 95.8   | 120.9 | 141.6 | 159.7 | 175.9 | 190.8 |
|           | 4 |               |            |                   | 87.9  | 93.9  | 99.5  | 104.8 | 109.9 | 114.7 | 91.9  | 101.3 | 109.9 | 117.9 | 125.3 | 132.4 | 101.3  | 117.9 | 132.4 | 145.4 | 157.4 | 168.5 | 109.9  | 132.4 | 151.5 | 168.5 | 184.0 | 198.2 |
|           | 5 |               |            |                   | 107.0 | 112.0 | 116.8 | 121.3 | 125.7 | 130.0 | 110.4 | 118.3 | 125.7 | 132.8 | 139.4 | 145.8 | 118.3  | 132.8 | 145.8 | 157.7 | 168.9 | 179.3 | 125.7  | 145.8 | 163.4 | 179.3 | 193.9 | 207.4 |
| SVM-1500H | 1 |               |            |                   | 48.5  | 63.6  | 75.8  | 86.3  | 95.7  | 104.2 | 59.0  | 79.5  | 95.7  | 109.5 | 121.7 | 132.9 | 79.5   | 109.5 | 132.9 | 152.7 | 170.3 | 186.2 | 95.7   | 132.9 | 161.7 | 186.2 | 207.8 | 227.3 |
|           | 2 |               |            |                   | 65.5  | 77.4  | 87.7  | 96.9  | 105.3 | 113.1 | 73.7  | 90.9  | 105.3 | 118.0 | 129.5 | 140.0 | 90.9   | 118.0 | 140.0 | 159.0 | 175.9 | 191.3 | 105.3  | 140.0 | 167.7 | 191.3 | 212.4 | 231.6 |
|           | 3 |               |            |                   | 86.8  | 96.1  | 104.6 | 112.4 | 119.7 | 126.6 | 93.1  | 107.2 | 119.7 | 131.0 | 141.4 | 151.1 | 107.2  | 131.0 | 151.1 | 168.9 | 184.9 | 199.6 | 119.7  | 151.1 | 177.1 | 199.6 | 219.9 | 238.5 |
|           | 4 |               |            |                   | 109.9 | 117.3 | 124.4 | 131.0 | 137.4 | 143.4 | 114.9 | 126.6 | 137   |       |       |       |        |       |       |       |       |       |        |       |       |       |       |       |