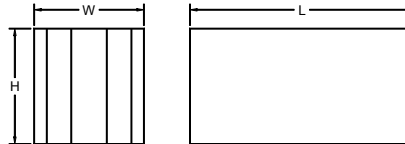


Availability

L: 3 feet and greater (sections if L>12ft)
W: 11.5-12.5, 23-25, 35-38, 46-50 inches
H: any length (72 inches practical limit)



5 ft Quick Rating = P22-L23-M35

See bottom of page for explanation.

Table 1: Insertion Loss

| Length (in) | Face Velocity (fpm) | Insertion Loss (dB) | | | | | | | |
|----------------|------------------------|---------------------|-------|-------|-------|--------|--------|--------|--------|
| | | 63Hz | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz |
| 36 | -1250 | 5 | 7 | 13 | 21 | 9 | 8 | 4 | 2 |
| | 0 | 5 | 6 | 10 | 18 | 9 | 7 | 7 | 8 |
| | 1250 | 4 | 5 | 12 | 19 | 9 | 5 | 4 | 5 |
| 60 | -1250 | 6 | 8 | 14 | 23 | 10 | 8 | 5 | 2 |
| | 0 | 5 | 6 | 10 | 18 | 10 | 8 | 8 | 8 |
| | 1250 | 5 | 6 | 13 | 20 | 9 | 6 | 5 | 6 |
| 84 | -1250 | 9 | 12 | 18 | 27 | 12 | 10 | 6 | 2 |
| | 0 | 7 | 9 | 12 | 21 | 13 | 10 | 9 | 9 |
| | 1250 | 6 | 9 | 16 | 23 | 11 | 7 | 6 | 7 |
| 120 | -1250 | 12 | 16 | 23 | 33 | 15 | 12 | 7 | 3 |
| | 0 | 11 | 13 | 15 | 27 | 16 | 13 | 11 | 11 |
| | 1250 | 7 | 14 | 21 | 28 | 13 | 9 | 7 | 8 |

Note that ASTM inter-laboratory testing has shown insertion loss may vary as much as 6 dB in the 63hz band, and 3 dB for all other frequencies. Data in parenthesis () may be greater than shown due to limitations in laboratory equipment and/or facilities.

Table 2: Airflow Generated Sound Power Level

| Face Velocity (fpm) | Airflow Generated Sound Power Level (dB) | | | | | | | |
|------------------------|--|-------|-------|-------|--------|--------|--------|--------|
| | 63Hz | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz |
| -1250 | 61 | 46 | 41 | 45 | 47 | 48 | 48 | 43 |
| -500 | 59 | 39 | 36 | 45 | 39 | 27 | 25 | 25 |
| 500 | 58 | 39 | 32 | 40 | 38 | 27 | 26 | 27 |
| 1250 | 59 | 46 | 41 | 45 | 48 | 48 | 47 | 42 |

Note that ASTM inter-laboratory testing has shown that generated noise may vary as much as 6 dB in the 63hz band, and 3 dB for all other frequencies. Data in parenthesis () may be less than shown due to limitations in laboratory equipment and/or facilities.

Table 3: Face Area Adjustment Factor

| Silencer cross-sectional area (sq ft) | | | | | | | |
|---------------------------------------|----|---|----|----|----|-----|-----|
| 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 |
| -6 | -3 | 0 | +3 | +6 | +9 | +12 | +15 |

Weight = 6.2 lb/ft³

Look up silencer cross-sectional area in table. Add adjustment to each octave band airflow generated sound power level from Table 2.

Table 4: Pressure Loss

| Length (in) | Loss Coefficient | Dynamic Pressure Loss (in wg) | | | | | |
|----------------|------------------|-------------------------------|------|------|------|------|------|
| | | Face Velocity (fpm) | | | | | |
| | | 500 | 750 | 1000 | 1250 | 1500 | 2000 |
| 36 | 2.99 | 0.05 | 0.10 | 0.19 | 0.29 | 0.42 | 0.75 |
| 60 | 3.51 | 0.05 | 0.12 | 0.22 | 0.34 | 0.49 | 0.88 |
| 84 | 4.48 | 0.07 | 0.16 | 0.28 | 0.44 | 0.63 | 1.12 |
| 120 | 5.48 | 0.09 | 0.19 | 0.34 | 0.53 | 0.77 | 1.37 |

Note: Shaded regions represent a design condition that may have negative consequences for acoustically sensitive applications.

The Quick Rating is a designation used for comparing different silencer models to note differences in energy consumption (pressure loss), low frequency performance, and mid-frequency performance. The P rating is the pressure drop at 1000 fpm where PXX is the pressure drop in hundredths of an inch wg. The LYY rating is the total insertion loss, YY dB, of the 63, 125 and 250 Hz octave bands at 1000 fpm. The MZZ rating is the total insertion loss, ZZ dB, of the 500, 1000 and 2000 Hz octave bands at 1000 fpm. See the sheet titled "Quick Rating Guide" for further information.