

## Standard Attenuator - Model **AMLP**

|         |                 |                 |               | Dynamic Insertion Loss (dB)<br>Octave Band/Center Frequency (Hz) |          |          |          |         |         |         |         |
|---------|-----------------|-----------------|---------------|--|----------|----------|----------|---------|---------|---------|---------|
| Model   | Flow            | Velocity<br>fpm | Press<br>Drop | 1<br>63  | 2<br>125 | 3<br>250 | 4<br>500 | 5<br>1K | 6<br>2K | 7<br>4K | 8<br>8K |
| AMLP-36 | Reverse<br>Flow | -2000           | 0.26          | 5  | 9        | 12       | 20       | 29      | 20      | 11      | 9       |
|         |                 | -1500           | 0.15          | 5  | 8        | 11       | 19       | 29      | 20      | 12      | 9       |
|         |                 | -1000           | 0.06          | 4  | 8        | 11       | 19       | 29      | 21      | 12      | 9       |
|         | Forward<br>Flow | 0               |               | 7  | 17       | 28       | 44       | 57      | 51      | 31      | 18      |
|         |                 | 1000            | 0.06          | 5  | 7        | 10       | 18       | 28      | 22      | 15      | 11      |
|         |                 | 1500            | 0.15          | 4  | 7        | 10       | 18       | 28      | 22      | 15      | 11      |
|         |                 | 2000            | 0.26          | 7  | 15       | 27       | 41       | 55      | 50      | 32      | 21      |
| AMLP-48 | Reverse<br>Flow | -2000           | 0.28          | 9  | 16       | 24       | 42       | 43      | 39      | 23      | 13      |
|         |                 | -1500           | 0.16          | 8  | 15       | 23       | 42       | 48      | 42      | 24      | 14      |
|         |                 | -1000           | 0.07          | 7  | 15       | 22       | 42       | 51      | 45      | 25      | 14      |
|         | Forward<br>Flow | 0               |               | 7  | 14       | 21       | 40       | 56      | 48      | 28      | 17      |
|         |                 | 1000            | 0.07          | 5  | 8        | 12       | 22       | 37      | 29      | 18      | 12      |
|         |                 | 1500            | 0.16          | 4  | 8        | 12       | 22       | 37      | 29      | 19      | 13      |
|         |                 | 2000            | 0.28          | 6  | 11       | 18       | 36       | 53      | 46      | 30      | 20      |
| AMLP-60 | Reverse<br>Flow | -2000           | 0.31          | 7  | 13       | 18       | 32       | 42      | 30      | 18      | 12      |
|         |                 | -1500           | 0.17          | 6  | 12       | 17       | 32       | 43      | 31      | 18      | 11      |
|         |                 | -1000           | 0.08          | 6  | 11       | 17       | 31       | 44      | 33      | 19      | 11      |
|         | Forward<br>Flow | 0               |               | 5  | 10       | 16       | 30       | 46      | 35      | 22      | 13      |
|         |                 | 1000            | 0.08          | 6  | 10       | 15       | 28       | 46      | 37      | 22      | 15      |
|         |                 | 1500            | 0.17          | 5  | 10       | 15       | 27       | 46      | 36      | 23      | 15      |
|         |                 | 2000            | 0.31          | 5  | 9        | 14       | 26       | 45      | 35      | 23      | 16      |
| AMLP-72 | Reverse<br>Flow | -2000           | 0.31          | 8  | 14       | 21       | 37       | 42      | 34      | 20      | 12      |
|         |                 | -1500           | 0.17          | 7  | 13       | 20       | 37       | 45      | 36      | 21      | 12      |
|         |                 | -1000           | 0.08          | 6  | 13       | 20       | 36       | 47      | 39      | 22      | 13      |
|         | Forward<br>Flow | 0               | 0.08          | 6  | 12       | 18       | 34       | 51      | 41      | 25      | 15      |
|         |                 | 1000            | 0.08          | 6  | 11       | 17       | 33       | 51      | 44      | 25      | 16      |
|         |                 | 1500            | 0.17          | 6  | 11       | 17       | 32       | 50      | 42      | 26      | 17      |
|         |                 | 2000            | 0.31          | 5  | 10       | 16       | 31       | 49      | 40      | 26      | 18      |
| AMLP-84 | Reverse<br>Flow | -2000           | 0.35          | 9  | 16       | 24       | 42       | 43      | 39      | 23      | 13      |
|         |                 | -1500           | 0.2           | 8  | 15       | 23       | 42       | 48      | 42      | 24      | 14      |
|         |                 | -1000           | 0.09          | 7  | 15       | 22       | 42       | 51      | 45      | 25      | 14      |
|         | Forward<br>Flow | 0               |               | 7  | 14       | 21       | 40       | 56      | 48      | 28      | 17      |
|         |                 | 1000            | 0.09          | 7  | 12       | 19       | 38       | 57      | 51      | 29      | 19      |
|         |                 | 1500            | 0.2           | 7  | 12       | 19       | 37       | 55      | 48      | 29      | 19      |
|         |                 | 2000            | 0.35          | 6  | 11       | 18       | 36       | 53      | 46      | 30      | 20      |

Forward Flow - characteristic of supply or discharge fan systems.  
Reverse Flow - typical of return or intake fan systems.

### Pressure Drop Calculation for Specific Velocity

Actual Velocity (fpm) =  $\frac{\text{CFM} \times 144}{\text{Height (in.)} \times \text{Width (in.)}}$

Pressure Drop =  $\left(\frac{\text{Actual Velocity}}{1500}\right)^2 \times \text{Catalog Pressure Drop @ 1500 fpm}$

#### Standard Construction

22 gauge galvanized casings  
24 gauge perforated baffles  
Acoustic quality Fiberglass media

#### Optional Features

Mylar or polyethylene liners  
Fiberglass cloth liners  
Stainless steel or aluminum construction

Computer program available which provides attenuator performance at actual job conditions.

## Standard Attenuator - Model **AMLP**

|                 |                 |                 |               | Dynamic Insertion Loss (dB)<br>Octave Band/Center Frequency (Hz) |          |          |          |         |         |         |         |
|-----------------|-----------------|-----------------|---------------|--|----------|----------|----------|---------|---------|---------|---------|
| Model           | Flow            | Velocity<br>fpm | Press<br>Drop | 1<br>63  | 2<br>125 | 3<br>250 | 4<br>500 | 5<br>1K | 6<br>2K | 7<br>4K | 8<br>8K |
| <b>AMLP-96</b>  | Reverse<br>Flow | -2000           | 0.39          | 9  | 17       | 27       | 44       | 49      | 44      | 27      | 15      |
|                 |                 | -1500           | 0.22          | 8  | 16       | 26       | 44       | 52      | 45      | 27      | 16      |
|                 |                 | -1000           | 0.1           | 7  | 16       | 25       | 43       | 54      | 47      | 27      | 16      |
|                 |                 | 0               |               | 7  | 15       | 24       | 42       | 56      | 49      | 29      | 17      |
|                 | Forward<br>Flow | 1000            | 0.1           | 7  | 14       | 23       | 39       | 57      | 51      | 29      | 19      |
|                 |                 | 1500            | 0.22          | 7  | 14       | 23       | 39       | 55      | 49      | 30      | 19      |
|                 |                 | 2000            | 0.39          | 6  | 13       | 22       | 38       | 54      | 47      | 31      | 20      |
| <b>AMLP-108</b> | Reverse<br>Flow | -2000           | 0.43          | 10   | 19       | 30       | 46       | 55      | 49      | 31      | 18      |
|                 |                 | -1500           | 0.24          | 9  | 18       | 29       | 46       | 56      | 49      | 31      | 18      |
|                 |                 | -1000           | 0.11          | 8  | 18       | 28       | 45       | 57      | 50      | 30      | 18      |
|                 |                 | 0               |               | 7  | 17       | 28       | 44       | 57      | 51      | 31      | 18      |
|                 | Forward<br>Flow | 1000            | 0.11          | 7  | 16       | 27       | 42       | 57      | 52      | 31      | 20      |
|                 |                 | 1500            | 0.24          | 7  | 16       | 27       | 42       | 56      | 51      | 31      | 20      |
|                 |                 | 2000            | 0.43          | 7  | 15       | 27       | 41       | 55      | 50      | 32      | 21      |
| <b>AMLP-120</b> | Reverse<br>Flow | -2000           | 0.46          | 10   | 20       | 32       | 51       | 61      | 54      | 35      | 21      |
|                 |                 | -1500           | 0.26          | 9  | 20       | 32       | 49       | 60      | 53      | 35      | 21      |
|                 |                 | -1000           | 0.12          | 9  | 19       | 31       | 47       | 60      | 54      | 35      | 20      |
|                 |                 | 0               |               | 8  | 19       | 31       | 46       | 58      | 53      | 35      | 19      |
|                 | Forward<br>Flow | 1000            | 0.12          | 8  | 18       | 31       | 46       | 57      | 53      | 36      | 21      |
|                 |                 | 1500            | 0.26          | 8  | 18       | 31       | 46       | 57      | 54      | 36      | 21      |
|                 |                 | 2000            | 0.46          | 7  | 17       | 31       | 44       | 57      | 55      | 37      | 21      |

Forward Flow - characteristic of supply or discharge fan systems.

Reverse Flow - typical of return or intake fan systems.

### Pressure Drop Calculation for Specific Velocity

Actual Velocity (fpm) =  $\text{CFM} \times 144 \div [\text{Height (in.)} \times \text{Width (in.)}]$

$$\text{Pressure Drop} = \left( \frac{\text{Actual Velocity}}{1500} \right)^2 \times \text{Catalog Pressure Drop @ 1500 fpm}$$

#### Standard Construction

22 gauge galvanized casings  
24 gauge perforated baffles  
Acoustic quality Fiberglass media

#### Optional Features

Mylar or polyethylene liners  
Fiberglass cloth liners  
Stainless steel or aluminum construction

Computer program available which provides attenuator performance at actual job conditions.

# Rectangular Attenuators

## Self-noise Power Levels

| Self-Noise Power Levels, <b>dB re 10<sup>-12</sup> Watts</b><br>Octave Band/Center Frequency (Hz) |                 |         |          |          |          |         |         |         |         |
|---|-----------------|---------|----------|----------|----------|---------|---------|---------|---------|
| Model   | Velocity<br>fpm | 1<br>63 | 2<br>125 | 3<br>250 | 4<br>500 | 5<br>1K | 6<br>2K | 7<br>4K | 8<br>8K |
| AHP   | 1000            | 53      | 44       | 38       | 37       | 41      | 44      | 38      | 31      |
|   | 1500            | 58      | 53       | 47       | 46       | 47      | 54      | 53      | 48      |
|   | 2000            | 71      | 62       | 55       | 54       | 52      | 59      | 63      | 59      |
| AMHP  | 1000            | 54      | 46       | 37       | 36       | 39      | 39      | 32      | 29      |
|   | 1500            | 58      | 53       | 46       | 44       | 45      | 49      | 47      | 43      |
|   | 2000            | 70      | 62       | 56       | 54       | 52      | 59      | 62      | 58      |
| AMP   | 1000            | 55      | 48       | 37       | 35       | 37      | 35      | 27      | 27      |
|   | 1500            | 61      | 57       | 52       | 49       | 48      | 55      | 55      | 50      |
|   | 2000            | 70      | 63       | 58       | 55       | 53      | 59      | 62      | 58      |
| AMLP  | 1000            | 54      | 45       | 37       | 36       | 36      | 32      | 24      | 27      |
|   | 1500            | 60      | 56       | 52       | 49       | 48      | 55      | 53      | 47      |
|   | 2000            | 68      | 62       | 57       | 55       | 52      | 59      | 60      | 55      |
| ALP   | 1000            | 53      | 42       | 37       | 35       | 35      | 29      | 22      | 27      |
|   | 2000            | 60      | 56       | 52       | 49       | 48      | 55      | 51      | 44      |
|   | 2500            | 67      | 62       | 57       | 55       | 52      | 59      | 59      | 53      |

Area Correction Factors - Listed self-noise power levels are for silencers with a face area of four (4) square feet. For silencers with different face areas, the following values must be added to those in the table.

| Face area (sq. ft.)        | 0.5 | 1  | 2  | 4 | 6 | 8 | 16 | 32 | 64 | 128 |
|----------------------------|-----|----|----|---|---|---|----|----|----|-----|
| PWL Correction Factors, dB | -9  | -6 | -3 | 0 | 2 | 3 | 6  | 9  | 12 | 15  |