

Elbow Attenuator - Model AEHP

| Model | Flow | Velocity fpm | Press Drop | Dynamic Insertion Loss (dB) Octave Band/Center Frequency (Hz) | | | | | | | |
|---------|---------|-----------------|---------------|--|----------|----------|----------|---------|---------|---------|---------|
| | | | | 1 63 | 2 125 | 3 250 | 4 500 | 5 1K | 6 2K | 7 4K | 8 8K |
| AEHP-36 | Reverse | -1000 | 0.55 | 12 | 16 | 20 | 23 | 26 | 22 | 21 | 20 |
| | Flow | -500 | 0.13 | 11 | 15 | 18 | 22 | 35 | 22 | 21 | 20 |
| | | 0 | 0 | 10 | 14 | 17 | 22 | 24 | 23 | 21 | 20 |
| | Forward | 500 | 0.13 | 9 | 14 | 16 | 21 | 24 | 23 | 22 | 20 |
| | Flow | 1000 | 0.55 | 8 | 13 | 16 | 21 | 23 | 24 | 23 | 21 |
| AEHP-48 | Reverse | -1000 | 0.56 | 14 | 18 | 23 | 29 | 32 | 28 | 25 | 22 |
| | Flow | -500 | 0.14 | 12 | 17 | 22 | 29 | 31 | 29 | 26 | 23 |
| | | 0 | 0 | 11 | 16 | 21 | 29 | 31 | 29 | 27 | 24 |
| | Forward | 500 | 0.14 | 10 | 16 | 21 | 28 | 32 | 30 | 28 | 24 |
| | Flow | 1000 | 0.56 | 8 | 15 | 21 | 27 | 33 | 32 | 30 | 24 |
| AEHP-60 | Reverse | -1000 | 0.57 | 15 | 19 | 26 | 35 | 38 | 34 | 27 | 21 |
| | Flow | -500 | 0.14 | 14 | 18 | 26 | 36 | 37 | 35 | 29 | 24 |
| | | 0 | 0 | 12 | 18 | 26 | 36 | 37 | 35 | 29 | 24 |
| | Forward | 500 | 0.14 | 11 | 17 | 25 | 35 | 37 | 36 | 30 | 25 |
| | Flow | 1000 | 0.57 | 10 | 17 | 25 | 34 | 38 | 37 | 32 | 26 |
| AEHP-72 | Reverse | -1000 | 0.58 | 17 | 20 | 29 | 42 | 44 | 39 | 29 | 21 |
| | Flow | -500 | 0.14 | 15 | 20 | 30 | 42 | 44 | 40 | 30 | 23 |
| | | 0 | 0 | 13 | 21 | 31 | 43 | 44 | 41 | 32 | 25 |
| | Forward | 500 | 0.14 | 13 | 20 | 29 | 42 | 45 | 41 | 33 | 26 |
| | Flow | 1000 | 0.58 | 12 | 20 | 28 | 41 | 45 | 42 | 34 | 27 |
| AEHP-84 | Reverse | -1000 | 0.59 | 17 | 25 | 33 | 46 | 47 | 42 | 31 | 24 |
| | Flow | -500 | 0.14 | 15 | 25 | 33 | 46 | 47 | 43 | 32 | 25 |
| | | 0 | 0 | 13 | 26 | 34 | 47 | 47 | 44 | 34 | 26 |
| | Forward | 500 | 0.14 | 13 | 25 | 33 | 46 | 47 | 44 | 35 | 27 |
| | Flow | 1000 | 0.59 | 12 | 25 | 32 | 45 | 48 | 45 | 36 | 28 |

Model number indicates centerline length of unit in inches.

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) = CFM x 144 ! [Height (in.) x Width (in.)]

$$\text{Pressure Drop} = \left[\frac{\text{Actual Velocity}}{1000} \right]^2 \times \text{Catalog Pressure Drop @ 1000 fpm}$$

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 Elbow Attenuators

Self-noise Power Levels

| | | Self-Noise Power Levels, dB re 10 ⁻¹² Watts Octave Band/Center Frequency (Hz) | | | | | | | |
|-------|-----------------|---|----------|----------|----------|---------|---------|---------|---------|
| Model | Velocity fpm | 1 63 | 2 125 | 3 250 | 4 500 | 5 1K | 6 2K | 7 4K | 8 8K |
| AEHP | 750 | 55 | 41 | 37 | 36 | 43 | 45 | 39 | 33 |
| | 1000 | 60 | 50 | 42 | 38 | 45 | 53 | 50 | 44 |
| | 1500 | 71 | 62 | 55 | 50 | 50 | 59 | 63 | 59 |
| AEMP | 750 | 54 | 40 | 35 | 36 | 42 | 39 | 32 | 29 |
| | 1500 | 60 | 58 | 55 | 50 | 50 | 57 | 56 | 50 |
| | 2000 | 72 | 62 | 57 | 56 | 58 | 62 | 64 | 59 |
| AELP | 1000 | 59 | 40 | 33 | 35 | 42 | 41 | 32 | 27 |
| | 2000 | 68 | 57 | 52 | 49 | 51 | 58 | 59 | 53 |
| | 2500 | 75 | 64 | 59 | 55 | 55 | 62 | 65 | 61 |

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 |

