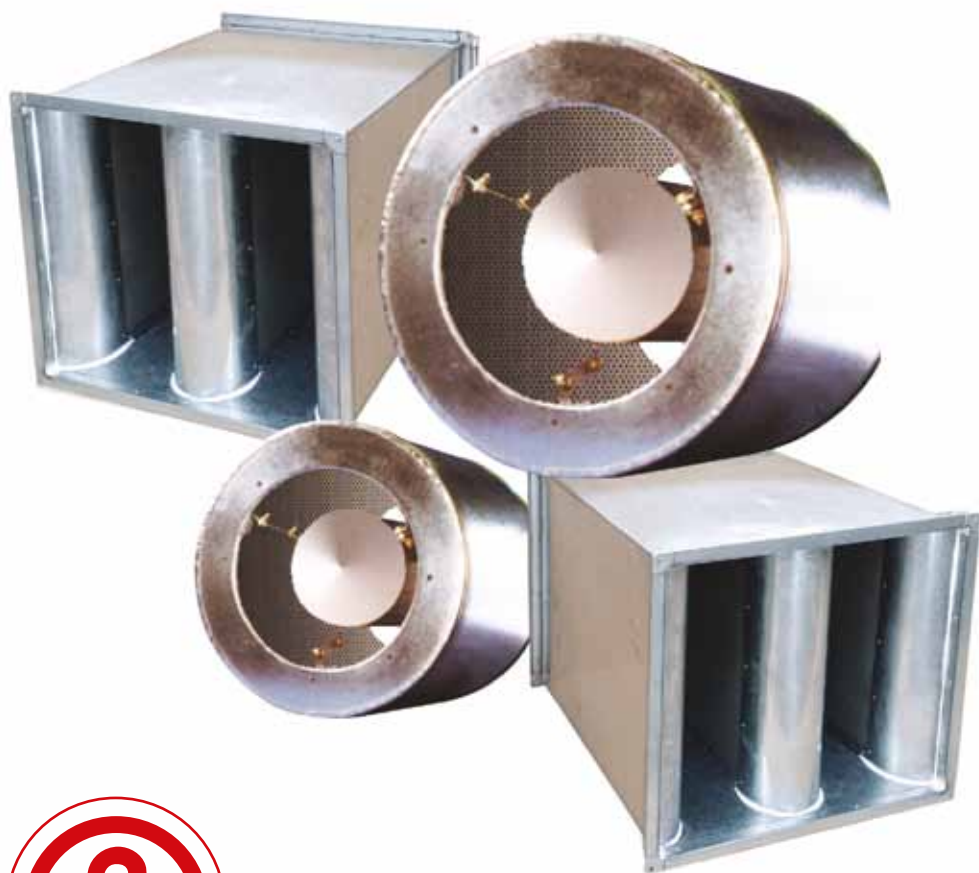


WE CONTROL  
**NOISE**



**BETA**  
industrial  
PRODUCTS CATALOGUE

PRODUCT BULLETIN

**11**

JULY 2020 REV 2







**BETA**  
i n d u s t r i a l

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CONSTRUCTION

- CASING:  
LOCK FORMED, PRE-GALVANISED STEEL SHEET OF 0.9mm THICKNESS. ALL FIXINGS ARE BY RIVETS.
- INSULATION :  
2 INCH THICK ROCKWOOL FIBERS BOUND WITH THERMOSETTING BINDER FACED WITH VAPOR-RETARDANT ALUMINUM FOIL FROM ONE SIDE. AND COMPLIES WITH ASTM C612.  
NON COMBUSTIBLE (EN ISO 1182)  
50 KG/M<sup>3</sup> DENSITY (ASTM C303).  
FUNGI-RESISTANT (ASTM C665).
- SPLITTERS:  
GALVANISED SHEET, BENDED TO FORM CHANNEL SECTIONS, FIXED WITH RIVETS. PERFORATED SHEET OF 0.7MM THICKNESS IS USED TO COVER THE SPLITTERS.
- FLANGES : ROLL FORMED DUCTO MATE 35mm FLANGES.

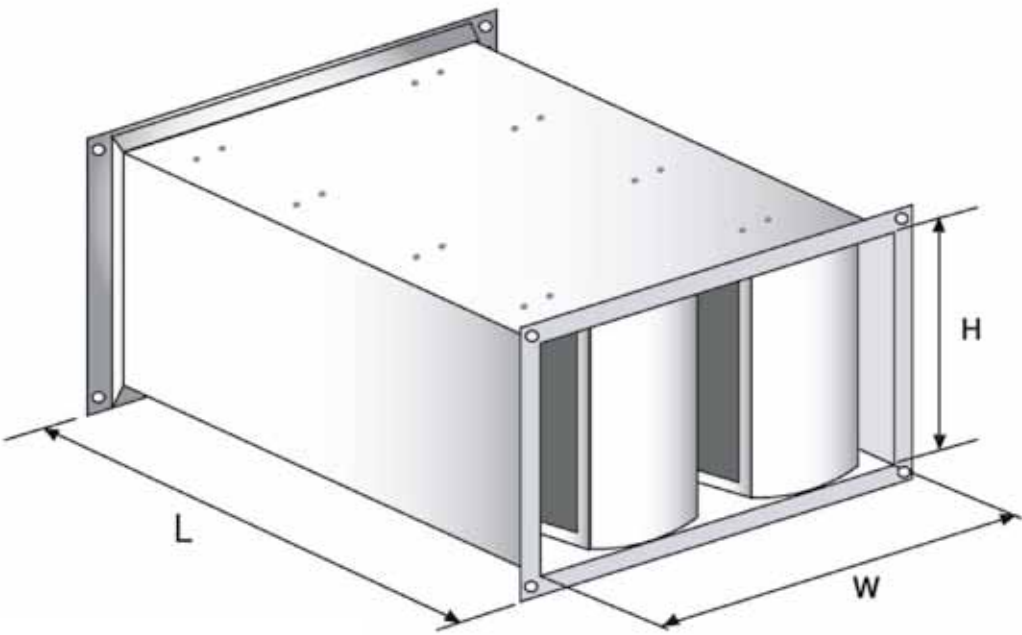
BETA INDUSTRIAL LLC Certifies that Sound Attenuators PGL-B - L850 & PGL-B L1150 shown herein are Licensed to bear AMCA seal. Sound Attenuators are certified by AMCA to ASTM standard E477-13e1 and comply with requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to dynamic insertion loss & Airflow generated sound power level.

ADVANTAGES

- \* Efficient at medium and high frequencies.
- \* AMCA certified performance for PGL-B L-850mm & PGL-B L-1150mm
- \* Suitable for installation in fire rated ductwork (2h) & smoke exhaust ductwork (400 deg C - 2h).



DIMENSIONS:



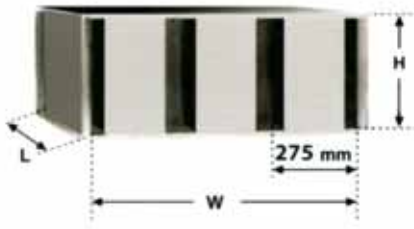
Ordering Key:

| P                                      | G | L | A | W | X | H | X | L |
|----------------------------------------|---|---|---|---|---|---|---|---|
| RECTANGULAR SOUND ATTENUATOR PGL MODEL |   |   |   |   |   |   |   |   |
| AIRWAY CODE: A,B,C,D,E OR F            |   |   |   |   |   |   |   |   |
| SIZE: WIDTH X HEIGHT X LENGTH          |   |   |   |   |   |   |   |   |





## SERIES PGL

LOW PRESSURE LOSS RECTANGULAR ATTENUATORS  
ATTENUATOR PERFORMANCE - AIR WAY CODE A

## Lengths 850 mm and 1150 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 850    | 7                               | 11  | 19  | 33  | 38 | 35 | 27 | 23 |
| 1150   | 8                               | 14  | 24  | 41  | 41 | 39 | 33 | 27 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT (mm) | 275  | 550  | 825  | 1100 | 1375 | 1650 | 1925 | 2200  |
|-------------|------|------|------|------|------|------|------|-------|
| 300         | 0.38 | 0.76 | 1.14 | 1.52 |      |      |      |       |
| 400         | 0.51 | 1.02 | 1.53 | 2.04 | 2.55 |      |      |       |
| 500         | 0.65 | 1.29 | 1.94 | 2.58 | 3.23 | 3.87 | 4.52 |       |
| 600         | 0.79 | 1.57 | 2.35 | 3.14 | 3.92 | 4.70 | 5.49 | 6.27  |
| 700         | 0.92 | 1.83 | 2.75 | 3.66 | 4.57 | 5.49 | 6.40 | 7.32  |
| 800         | 1.05 | 2.09 | 3.14 | 4.18 | 5.23 | 6.27 | 7.32 | 8.36  |
| 900         | 1.18 | 2.35 | 3.53 | 4.70 | 5.88 | 7.05 | 8.23 | 9.40  |
| 1000        | 1.31 | 2.62 | 3.92 | 5.23 | 6.53 | 7.84 | 9.14 | 10.5  |
| 1100        | 1.44 | 2.88 | 4.31 | 5.75 | 7.18 | 8.62 | 10.1 | 11.5  |
| 1200        |      | 3.14 | 4.70 | 6.27 | 7.84 | 9.40 | 11.0 | 12.6  |
| 1300        |      | 3.40 | 5.10 | 6.79 | 8.49 | 10.2 | 11.9 | 13.6  |
| 1400        |      | 3.66 | 5.49 | 7.32 | 9.14 | 11.0 | 12.8 | 14.7  |
| 1500        |      | 3.92 | 5.88 | 7.84 | 9.80 | 11.8 | 13.7 | 15.7  |
| 1600        |      | 4.18 | 6.27 | 8.36 | 10.5 | 12.6 | 14.7 | 16.8  |
| 1700        |      | 4.44 | 6.66 | 8.88 | 11.1 | 13.4 | 15.6 | 17.8  |
| 1800        |      | 4.70 | 7.05 | 9.40 | 11.8 | 14.1 | 16.5 | 18.8  |
| 1900        |      | 4.97 | 7.45 | 9.93 | 12.4 | 14.9 | 17.4 | 19.9  |
| 2000        |      | 5.23 | 7.84 | 10.5 | 13.1 | 15.7 | 18.3 | 20.9  |
| 2100        |      | 5.49 | 8.23 | 11.0 | 13.7 | 16.5 | 19.2 | 22.0  |
| 2200        |      | 5.75 | 8.62 | 11.5 | 14.4 | 17.3 | 20.1 | 23.0  |
| 2300        |      |      | 9.01 | 12.1 | 15.1 | 18.1 | 21.1 | 24.1  |
| 2400        |      |      | 9.40 | 12.6 | 15.7 | 18.8 | 22.0 | 25.1* |

## Lengths 1450 mm and 1750 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 1450   | 9                               | 17  | 29  | 46  | 44 | 42 | 37 | 31 |
| 1750   | 10                              | 20  | 35  | 50  | 46 | 44 | 39 | 35 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT (mm) | 275  | 550  | 825  | 1100 | 1375 | 1650  | 1925  | 2200  |
|-------------|------|------|------|------|------|-------|-------|-------|
| 300         | 0.34 | 0.68 | 1.01 | 1.35 |      |       |       |       |
| 400         | 0.46 | 0.91 | 1.37 | 1.82 | 2.28 |       |       |       |
| 500         | 0.58 | 1.16 | 1.73 | 2.31 | 2.89 | 3.47  | 4.04  |       |
| 600         | 0.71 | 1.41 | 2.11 | 2.81 | 3.52 | 4.22  | 4.92  | 5.62  |
| 700         | 0.82 | 1.64 | 2.46 | 3.28 | 4.10 | 4.92  | 5.74  | 6.56  |
| 800         | 0.94 | 1.88 | 2.81 | 3.75 | 4.69 | 5.62  | 6.56  | 7.50  |
| 900         | 1.06 | 2.11 | 3.16 | 4.22 | 5.27 | 6.33  | 7.38  | 8.43  |
| 1000        | 1.17 | 2.35 | 3.52 | 4.69 | 5.86 | 7.03  | 8.20  | 9.37  |
| 1100        | 1.29 | 2.58 | 3.87 | 5.16 | 6.44 | 7.73  | 9.02  | 10.3  |
| 1200        |      | 2.81 | 4.22 | 5.62 | 7.03 | 8.43  | 9.84  | 11.3  |
| 1300        |      | 3.05 | 4.57 | 6.09 | 7.61 | 9.14  | 10.7  | 12.2  |
| 1400        |      | 3.28 | 4.92 | 6.56 | 8.20 | 9.84  | 11.5  | 13.2  |
| 1500        |      | 3.52 | 5.27 | 7.03 | 8.78 | 10.6  | 12.3  | 14.1  |
| 1600        |      | 3.75 | 5.62 | 7.50 | 9.37 | 11.3  | 13.2  | 15.0* |
| 1700        |      | 3.98 | 5.97 | 7.96 | 9.96 | 12.0  | 14.0  | 16.0* |
| 1800        |      | 4.22 | 6.33 | 8.43 | 10.6 | 12.7  | 14.8* | 16.9* |
| 1900        |      | 4.45 | 6.68 | 8.90 | 11.2 | 13.4  | 15.6* |       |
| 2000        |      | 4.69 | 7.03 | 9.37 | 11.7 | 14.1  | 16.4* |       |
| 2100        |      | 4.92 | 7.38 | 9.84 | 12.3 | 14.8* | 17.2* |       |
| 2200        |      | 5.16 | 7.73 | 10.3 | 12.9 | 15.5* |       |       |
| 2300        |      |      | 8.08 | 10.8 | 13.5 | 16.2* |       |       |
| 2400        |      |      | 8.43 | 11.3 | 14.1 | 16.9* |       |       |

\* SEE NOTE 7

## Lengths 2050 mm and 2350 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 2050   | 12                              | 23  | 40  | 50  | 50 | 45 | 43 | 41 |
| 2350   | 13                              | 26  | 44  | 50  | 50 | 46 | 46 | 43 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT (mm) | 275  | 550  | 825  | 1100  | 1375  | 1650  | 1925  | 2200  |
|-------------|------|------|------|-------|-------|-------|-------|-------|
| 300         | 0.31 | 0.62 | 0.92 | 1.23  |       |       |       |       |
| 400         | 0.42 | 0.83 | 1.25 | 1.66  | 2.08  |       |       |       |
| 500         | 0.53 | 1.06 | 1.58 | 2.11  | 2.63  | 3.16  | 3.69  |       |
| 600         | 0.65 | 1.29 | 1.93 | 2.57  | 3.21  | 3.85  | 4.49  | 5.14  |
| 700         | 0.75 | 1.50 | 2.25 | 3.00  | 3.75  | 4.49  | 5.24  | 5.99  |
| 800         | 0.86 | 1.71 | 2.57 | 3.43  | 4.28  | 5.14  | 5.99  | 6.85  |
| 900         | 0.97 | 1.93 | 2.89 | 3.58  | 4.82  | 5.78  | 6.74  | 7.70  |
| 1000        | 1.07 | 2.14 | 3.21 | 4.28  | 5.35  | 6.42  | 7.49  | 8.56  |
| 1100        | 1.18 | 2.36 | 3.53 | 4.71  | 5.88  | 7.06  | 8.24  | 9.41  |
| 1200        |      | 2.57 | 3.85 | 5.14  | 6.42  | 7.70  | 8.99  | 10.3* |
| 1300        |      | 2.78 | 4.17 | 5.56  | 6.95  | 8.34  | 9.73  | 11.2* |
| 1400        |      | 3.00 | 4.49 | 5.99  | 7.49  | 8.99  | 10.5* |       |
| 1500        |      | 3.21 | 4.82 | 6.42  | 8.02  | 9.63  | 11.3* |       |
| 1600        |      | 3.43 | 5.14 | 6.85  | 8.56  | 10.3* |       |       |
| 1700        |      | 3.64 | 5.46 | 7.27  | 9.09  | 10.9* |       |       |
| 1800        |      | 3.85 | 5.78 | 7.70  | 9.63* |       |       |       |
| 1900        |      | 4.07 | 6.10 | 8.13  | 10.2* |       |       |       |
| 2000        |      | 4.28 | 6.42 | 8.56  | 10.7* |       |       |       |
| 2100        |      | 4.49 | 6.74 | 8.99  | 11.3* |       |       |       |
| 2200        |      | 4.71 | 7.06 | 9.41  |       |       |       |       |
| 2300        |      |      | 7.38 | 9.84  |       |       |       |       |
| 2400        |      |      | 7.70 | 10.3* |       |       |       |       |

\*SEE NOTE 7

## NOTES:

1. Tabulated volume flow rates will result at 60 Pa pressure losses for ducted attenuators, at air density of 1.2 kg/m³

2. Pressure loss varies in proportion to density.

3. Pressure loss varies in proportion to the square of the volume flow rate.

4. Maximum allowable volume flow rate is 1.25\* the values given in the tables, pressure loss varying in proportion to the square of the factor.

5. Approximate regenerated noise levels.

| Volume Flow Rate                    | NC | A-Scale |
|-------------------------------------|----|---------|
| Over 0.63 to 0.8 * Tabulated Values | 30 | 35      |
| Over 0.8 to 1.0 * Tabulated Values  | 35 | 40      |
| Over 1.0 to 1.25 * Tabulated Values | 40 | 45      |

6. Tabulated values apply to attenuators ducted both sides. For plenum entry and/or discharge the pressure loss is to be multiplied by the appropriate factor below.

| Length    | Plenum to Duct | Duct to Plenum | Plenum to Plenum |
|-----------|----------------|----------------|------------------|
| 850/1150  | 1.15           | 2.78           | 3.03             |
| 1450/1750 | 1.13           | 2.51           | 2.63             |
| 2050/2350 | 1.10           | 2.26           | 2.60             |

7. Selection marked \* are available only with the shorter attenuator

in collaboration with: 



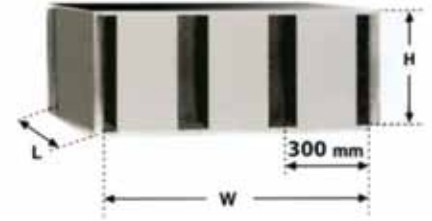


## SERIES PGL

## RECTANGULAR ATTENUATORS - AIR WAY CODE B

## DYNAMIC INSERTION LOSS RATING:

## FORWARD FLOW (+)/ REVERSE FLOW (-)



| Model<br>Dimensions (W x H x L)                                                            | Face Velocity |       | Static Pressure |      | Octave Band Center Frequency (Hz) |     |     |     |      |      |      |      |
|--------------------------------------------------------------------------------------------|---------------|-------|-----------------|------|-----------------------------------|-----|-----|-----|------|------|------|------|
|                                                                                            | (fpm)         | (m/s) | (in.wg)         | (Pa) | 63                                | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| PGL-B<br>(W24in. x H24in. x L22in.)<br>(W600mm x H600mm x L550mm)                          | -1500         | -7.62 | 0.8             | 200  | 4                                 | 4   | 11  | 21  | 24   | 21   | 17   | 12   |
|                                                                                            | -1000         | -5.08 | 0.35            | 88   | 4                                 | 4   | 11  | 16  | 28   | 26   | 17   | 13   |
|                                                                                            | -500          | -2.54 | 0.09            | 23   | 4                                 | 3   | 10  | 15  | 28   | 25   | 17   | 14   |
|                                                                                            | 0             | 0     | -               | -    | 3                                 | 3   | 9   | 14  | 27   | 24   | 17   | 14   |
|                                                                                            | 500           | 2.54  | 0.09            | 23   | 3                                 | 3   | 9   | 13  | 27   | 25   | 18   | 14   |
|                                                                                            | 1000          | 5.08  | 0.35            | 88   | 2                                 | 2   | 8   | 12  | 26   | 25   | 18   | 13   |
|                                                                                            | 1500          | 7.62  | 0.8             | 200  | 1                                 | 2   | 8   | 12  | 26   | 24   | 17   | 13   |
|                                                                                            | 2000          | 10.16 | 1.35            | 336  | 1                                 | 2   | 8   | 12  | 23   | 23   | 19   | 14   |
| PGL-B<br>(W24in. x H24in. x L35in.)<br>(W600mm x H600mm x L850mm)<br><br>(AMCA Certified)  | -1500         | -7.62 | 0.87            | 217  | 6                                 | 7   | 15  | 25  | 31   | 26   | 19   | 13   |
|                                                                                            | -1000         | -5.08 | 0.38            | 95   | 5                                 | 7   | 15  | 24  | 35   | 30   | 19   | 14   |
|                                                                                            | -500          | -2.54 | 0.10            | 25   | 5                                 | 6   | 14  | 23  | 35   | 29   | 19   | 15   |
|                                                                                            | 0             | 0     | -               | -    | 4                                 | 6   | 13  | 22  | 34   | 28   | 19   | 15   |
|                                                                                            | 500           | 2.54  | 0.10            | 25   | 4                                 | 5   | 13  | 21  | 34   | 29   | 20   | 15   |
|                                                                                            | 1000          | 5.08  | 0.38            | 95   | 3                                 | 5   | 12  | 20  | 33   | 29   | 20   | 15   |
|                                                                                            | 1500          | 7.62  | 0.87            | 217  | 2                                 | 5   | 11  | 19  | 32   | 28   | 20   | 15   |
|                                                                                            | 2000          | 10.16 | 1.53            | 381  | 2                                 | 4   | 11  | 19  | 29   | 27   | 21   | 16   |
| PGL-B<br>(W24in. x H24in. x L46in.)<br>(W600mm x H600mm x L1150mm)<br><br>(AMCA Certified) | -1500         | -7.62 | 1.03            | 257  | 7                                 | 10  | 20  | 33  | 32   | 25   | 23   | 15   |
|                                                                                            | -1000         | -5.08 | 0.47            | 117  | 6                                 | 10  | 19  | 32  | 34   | 36   | 24   | 16   |
|                                                                                            | -500          | -2.54 | 0.12            | 30   | 5                                 | 10  | 18  | 30  | 45   | 36   | 23   | 17   |
|                                                                                            | 0             | 0     | -               | -    | 4                                 | 8   | 17  | 29  | 44   | 36   | 23   | 18   |
|                                                                                            | 500           | 2.54  | 0.12            | 30   | 4                                 | 8   | 16  | 28  | 43   | 36   | 24   | 19   |
|                                                                                            | 1000          | 5.08  | 0.47            | 117  | 3                                 | 7   | 16  | 27  | 42   | 36   | 25   | 18   |
|                                                                                            | 1500          | 7.62  | 1.03            | 257  | 3                                 | 7   | 15  | 26  | 38   | 33   | 25   | 19   |
|                                                                                            | 2000          | 10.16 | 1.86            | 463  | 2                                 | 6   | 14  | 25  | 30   | 29   | 25   | 19   |
| PGL-B<br>(W24in. x H24in. x L58in.)<br>(W600mm x H600mm x L1450mm)                         | -1500         | -7.62 | 1.06            | 264  | 9                                 | 13  | 24  | 37  | 39   | 30   | 25   | 16   |
|                                                                                            | -1000         | -5.08 | 0.492           | 123  | 7                                 | 13  | 23  | 40  | 41   | 40   | 26   | 17   |
|                                                                                            | -500          | -2.54 | 0.126           | 32   | 6                                 | 13  | 22  | 38  | 52   | 40   | 25   | 18   |
|                                                                                            | 0             | 0     | -               | -    | 5                                 | 11  | 21  | 37  | 51   | 40   | 25   | 19   |
|                                                                                            | 500           | 2.54  | 0.126           | 32   | 5                                 | 10  | 20  | 36  | 50   | 40   | 26   | 20   |
|                                                                                            | 1000          | 5.08  | 0.492           | 123  | 4                                 | 10  | 20  | 35  | 49   | 40   | 27   | 20   |
|                                                                                            | 1500          | 7.62  | 1.06            | 264  | 4                                 | 10  | 18  | 33  | 44   | 37   | 28   | 21   |
|                                                                                            | 2000          | 10.16 | 1.959           | 488  | 3                                 | 8   | 17  | 32  | 36   | 33   | 27   | 21   |
| PGL-B<br>(W24in. x H24in. x L70in.)<br>(W600mm x H600mm x L1750mm)                         | -1500         | -7.62 | 1.161           | 289  | 11                                | 17  | 29  | 41  | 47   | 35   | 27   | 17   |
|                                                                                            | -1000         | -5.08 | 0.528           | 132  | 9                                 | 17  | 28  | 48  | 49   | 45   | 29   | 19   |
|                                                                                            | -500          | -2.54 | 0.135           | 34   | 8                                 | 17  | 27  | 46  | 60   | 44   | 27   | 20   |
|                                                                                            | 0             | 0     | -               | -    | 7                                 | 14  | 25  | 45  | 58   | 45   | 27   | 21   |
|                                                                                            | 500           | 2.54  | 0.135           | 34   | 7                                 | 13  | 24  | 44  | 57   | 45   | 29   | 22   |
|                                                                                            | 1000          | 5.08  | 0.528           | 132  | 6                                 | 13  | 24  | 43  | 56   | 45   | 30   | 22   |
|                                                                                            | 1500          | 7.62  | 1.161           | 289  | 5                                 | 13  | 22  | 41  | 51   | 41   | 31   | 23   |
|                                                                                            | 2000          | 10.16 | 2.092           | 521  | 4                                 | 11  | 21  | 39  | 43   | 38   | 30   | 23   |
| PGL-B<br>(W24in. x H24in. x L84in.)<br>(W600mm x H600mm x L2100mm)                         | -1500         | -7.62 | 1.226           | 306  | 13                                | 20  | 33  | 45  | 54   | 40   | 29   | 18   |
|                                                                                            | -1000         | -5.08 | 0.557           | 139  | 10                                | 20  | 32  | 56  | 56   | 49   | 31   | 20   |
|                                                                                            | -500          | -2.54 | 0.142           | 36   | 9                                 | 20  | 31  | 54  | 67   | 48   | 29   | 21   |
|                                                                                            | 0             | 0     | -               | -    | 8                                 | 17  | 29  | 53  | 65   | 49   | 29   | 22   |
|                                                                                            | 500           | 2.54  | 0.142           | 36   | 8                                 | 15  | 28  | 52  | 64   | 49   | 31   | 23   |
|                                                                                            | 1000          | 5.08  | 0.557           | 139  | 7                                 | 16  | 28  | 51  | 63   | 49   | 32   | 24   |
|                                                                                            | 1500          | 7.62  | 1.226           | 306  | 6                                 | 16  | 25  | 48  | 57   | 45   | 34   | 25   |
|                                                                                            | 2000          | 10.16 | 2.208           | 550  | 5                                 | 13  | 24  | 46  | 49   | 42   | 32   | 25   |
| PGL-B<br>(W24in. x H24in. x L96in.)<br>(W600mm x H600mm x L2400mm)                         | -1500         | -7.62 | 1.291           | 322  | 15                                | 24  | 38  | 49  | 62   | 45   | 31   | 19   |
|                                                                                            | -1000         | -5.08 | 0.586           | 146  | 12                                | 24  | 37  | 64  | 64   | 54   | 34   | 22   |
|                                                                                            | -500          | -2.54 | 0.149           | 38   | 11                                | 24  | 36  | 62  | 75   | 52   | 31   | 23   |
|                                                                                            | 0             | 0     | -               | -    | 10                                | 20  | 33  | 61  | 72   | 54   | 32   | 24   |
|                                                                                            | 500           | 2.54  | 0.149           | 38   | 10                                | 18  | 32  | 60  | 71   | 54   | 34   | 25   |
|                                                                                            | 1000          | 5.08  | 0.586           | 146  | 9                                 | 19  | 32  | 59  | 70   | 54   | 35   | 26   |
|                                                                                            | 1500          | 7.62  | 1.291           | 322  | 7                                 | 19  | 29  | 56  | 64   | 49   | 37   | 27   |
|                                                                                            | 2000          | 10.16 | 2.324           | 579  | 6                                 | 16  | 28  | 53  | 56   | 47   | 35   | 27   |





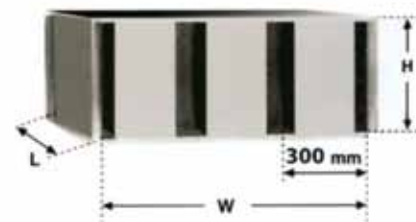


## SERIES PGL

## RECTANGULAR ATTENUATORS - AIR WAY CODE B

## GENERATED SOUND POWER LEVEL:

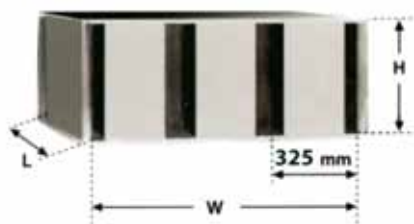
## FORWARD FLOW (+)/ REVERSE FLOW (-)



| Model<br>Dimensions (W x H x L)                                                            | Face Velocity |       | Static Pressure |      | Octave Band Center Frequency (Hz) |     |     |     |      |      |      |      |
|--------------------------------------------------------------------------------------------|---------------|-------|-----------------|------|-----------------------------------|-----|-----|-----|------|------|------|------|
|                                                                                            | (fpm)         | (m/s) | (in.wg)         | (Pa) | 63                                | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| PGL-B<br>(W24in. x H24in. x L22in.)<br>(W600mm x H600mm x L550mm)                          | -1500         | -7.62 | 0.80            | 200  | 63                                | 61  | 58  | 60  | 66   | 68   | 58   | 49   |
|                                                                                            | -1000         | -5.08 | 0.35            | 88   | 66                                | 51  | 50  | 54  | 58   | 52   | 42   | 31   |
|                                                                                            | -500          | -2.54 | 0.09            | 23   | 65                                | 43  | 41  | 42  | 37   | 25   | 19   | 24   |
|                                                                                            | 500           | 2.54  | 0.09            | 23   | 66                                | 42  | 37  | 39  | 34   | 24   | 19   | 24   |
|                                                                                            | 1000          | 5.08  | 0.35            | 88   | 65                                | 51  | 50  | 53  | 51   | 50   | 42   | 30   |
|                                                                                            | 1500          | 7.62  | 0.80            | 200  | 64                                | 63  | 60  | 60  | 61   | 60   | 57   | 48   |
|                                                                                            | 2000          | 10.16 | 1.35            | 336  | 76                                | 69  | 68  | 67  | 67   | 66   | 65   | 58   |
| PGL-B<br>(W24in. x H24in. x L35in.)<br>(W600mm x H600mm x L850mm)<br><br>(AMCA Certified)  | -1500         | -7.62 | 0.87            | 217  | 62                                | 60  | 57  | 60  | 66   | 68   | 58   | 49   |
|                                                                                            | -1000         | -5.08 | 0.38            | 95   | 65                                | 50  | 50  | 54  | 58   | 52   | 43   | 31   |
|                                                                                            | -500          | -2.54 | 0.10            | 25   | 65                                | 44  | 41  | 41  | 36   | 25   | 19   | 24   |
|                                                                                            | 500           | 2.54  | 0.10            | 25   | 66                                | 43  | 37  | 38  | 34   | 24   | 19   | 24   |
|                                                                                            | 1000          | 5.08  | 0.38            | 95   | 65                                | 52  | 50  | 52  | 51   | 49   | 42   | 30   |
|                                                                                            | 1500          | 7.62  | 0.87            | 217  | 65                                | 63  | 60  | 60  | 60   | 59   | 56   | 47   |
|                                                                                            | 2000          | 10.16 | 1.53            | 381  | 76                                | 69  | 68  | 67  | 67   | 66   | 64   | 58   |
| PGL-B<br>(W24in. x H24in. x L46in.)<br>(W600mm x H600mm x L1150mm)<br><br>(AMCA Certified) | -1500         | -7.62 | 1.03            | 257  | 66                                | 59  | 58  | 60  | 66   | 71   | 61   | 52   |
|                                                                                            | -1000         | -5.08 | 0.47            | 117  | 60                                | 52  | 51  | 55  | 64   | 55   | 48   | 37   |
|                                                                                            | -500          | -2.54 | 0.12            | 30   | 59                                | 46  | 41  | 42  | 38   | 28   | 20   | 23   |
|                                                                                            | 500           | 2.54  | 0.12            | 30   | 64                                | 46  | 38  | 38  | 36   | 27   | 19   | 23   |
|                                                                                            | 1000          | 5.08  | 0.47            | 117  | 62                                | 53  | 50  | 52  | 52   | 50   | 45   | 34   |
|                                                                                            | 1500          | 7.62  | 1.03            | 257  | 72                                | 62  | 60  | 59  | 60   | 60   | 58   | 50   |
|                                                                                            | 2000          | 10.16 | 1.86            | 463  | 75                                | 69  | 68  | 67  | 67   | 66   | 66   | 60   |
| PGL-B<br>(W24in. x H24in. x L58in.)<br>(W600mm x H600mm x L1450mm)                         | -1500         | -7.62 | 1.06            | 264  | 65                                | 58  | 57  | 60  | 66   | 71   | 61   | 52   |
|                                                                                            | -1000         | -5.08 | 0.492           | 123  | 59                                | 51  | 51  | 55  | 64   | 55   | 49   | 37   |
|                                                                                            | -500          | -2.54 | 0.126           | 32   | 59                                | 47  | 41  | 43  | 39   | 28   | 20   | 22   |
|                                                                                            | 500           | 2.54  | 0.126           | 32   | 64                                | 47  | 38  | 37  | 36   | 27   | 19   | 23   |
|                                                                                            | 1000          | 5.08  | 0.492           | 123  | 62                                | 54  | 50  | 51  | 52   | 49   | 45   | 34   |
|                                                                                            | 1500          | 7.62  | 1.06            | 264  | 73                                | 62  | 60  | 59  | 59   | 59   | 57   | 49   |
|                                                                                            | 2000          | 10.16 | 1.959           | 488  | 75                                | 69  | 68  | 67  | 67   | 66   | 65   | 60   |
| PGL-B<br>(W24in. x H24in. x L70in.)<br>(W600mm x H600mm x L1750mm)                         | -1500         | -7.62 | 1.161           | 289  | 64                                | 57  | 57  | 60  | 66   | 71   | 62   | 53   |
|                                                                                            | -1000         | -5.08 | 0.528           | 132  | 59                                | 51  | 51  | 56  | 65   | 56   | 50   | 38   |
|                                                                                            | -500          | -2.54 | 0.135           | 34   | 59                                | 48  | 41  | 40  | 36   | 28   | 20   | 24   |
|                                                                                            | 500           | 2.54  | 0.135           | 34   | 64                                | 48  | 39  | 37  | 36   | 27   | 19   | 23   |
|                                                                                            | 1000          | 5.08  | 0.528           | 132  | 63                                | 55  | 50  | 51  | 52   | 49   | 45   | 34   |
|                                                                                            | 1500          | 7.62  | 1.161           | 289  | 75                                | 62  | 60  | 59  | 59   | 59   | 57   | 49   |
|                                                                                            | 2000          | 10.16 | 2.092           | 521  | 75                                | 70  | 68  | 67  | 67   | 66   | 65   | 60   |
| PGL-B<br>(W24in. x H24in. x L84in.)<br>(W600mm x H600mm x L2100mm)                         | -1500         | -7.62 | 1.226           | 306  | 63                                | 56  | 56  | 60  | 66   | 71   | 62   | 53   |
|                                                                                            | -1000         | -5.08 | 0.557           | 139  | 58                                | 50  | 51  | 56  | 65   | 56   | 51   | 38   |
|                                                                                            | -500          | -2.54 | 0.142           | 36   | 59                                | 49  | 41  | 39  | 35   | 28   | 20   | 24   |
|                                                                                            | 500           | 2.54  | 0.142           | 36   | 64                                | 49  | 39  | 36  | 36   | 27   | 19   | 23   |
|                                                                                            | 1000          | 5.08  | 0.557           | 139  | 63                                | 56  | 50  | 50  | 52   | 48   | 45   | 34   |
|                                                                                            | 1500          | 7.62  | 1.226           | 306  | 76                                | 62  | 60  | 59  | 58   | 58   | 56   | 48   |
|                                                                                            | 2000          | 10.16 | 2.208           | 550  | 75                                | 70  | 68  | 67  | 67   | 66   | 64   | 60   |
| PGL-B<br>(W24in. x H24in. x L96in.)<br>(W600mm x H600mm x L2400mm)                         | -1500         | -7.62 | 1.291           | 322  | 62                                | 55  | 56  | 60  | 66   | 71   | 63   | 54   |
|                                                                                            | -1000         | -5.08 | 0.586           | 146  | 58                                | 50  | 51  | 57  | 66   | 57   | 52   | 39   |
|                                                                                            | -500          | -2.54 | 0.149           | 38   | 59                                | 50  | 41  | 38  | 34   | 28   | 20   | 25   |
|                                                                                            | 500           | 2.54  | 0.149           | 38   | 64                                | 50  | 40  | 36  | 36   | 27   | 19   | 23   |
|                                                                                            | 1000          | 5.08  | 0.586           | 146  | 64                                | 57  | 50  | 50  | 52   | 48   | 45   | 34   |
|                                                                                            | 1500          | 7.62  | 1.291           | 322  | 78                                | 62  | 60  | 59  | 58   | 58   | 56   | 48   |
|                                                                                            | 2000          | 10.16 | 2.324           | 579  | 75                                | 71  | 68  | 67  | 67   | 66   | 64   | 60   |







## SERIES PGL

LOW PRESSURE LOSS RECTANGULAR ATTENUATORS  
ATTENUATOR PERFORMANCE - AIR WAY CODE C

## Lengths 850 mm and 1150 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 850    | 6                               | 9   | 15  | 26  | 32 | 27 | 18 | 15 |
| 1150   | 7                               | 10  | 19  | 35  | 37 | 32 | 24 | 16 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT<br>(mm) | 325  | 650  | 975  | 1300 | 1625 | 1950 | 2275  |
|----------------|------|------|------|------|------|------|-------|
| 300            | 0.67 | 1.33 | 2.00 |      |      |      |       |
| 400            | 0.91 | 1.81 | 2.72 | 3.62 |      |      |       |
| 500            | 1.16 | 2.31 | 3.46 | 4.61 | 5.77 | 6.92 |       |
| 600            | 1.42 | 2.83 | 4.24 | 5.65 | 7.07 | 8.48 | 9.89  |
| 700            | 1.65 | 3.30 | 4.95 | 6.59 | 8.24 | 9.89 | 11.6  |
| 800            | 1.89 | 3.77 | 5.65 | 7.54 | 9.42 | 11.3 | 13.2  |
| 900            | 2.12 | 4.24 | 6.36 | 8.48 | 10.6 | 12.8 | 14.9  |
| 1000           | 2.36 | 4.71 | 7.07 | 9.42 | 11.8 | 14.2 | 16.5  |
| 1100           | 2.59 | 5.18 | 7.77 | 10.4 | 13.0 | 15.6 | 18.2  |
| 1200           | 2.83 | 5.65 | 8.48 | 11.3 | 14.2 | 17.0 | 19.8  |
| 1300           | 3.06 | 6.12 | 9.18 | 12.3 | 15.3 | 18.4 | 21.5  |
| 1400           |      | 6.59 | 9.89 | 13.2 | 16.5 | 19.8 | 23.1  |
| 1500           |      | 7.07 | 10.6 | 14.2 | 17.7 | 21.2 | 24.8  |
| 1600           |      | 7.54 | 11.3 | 15.1 | 18.9 | 22.6 | 26.4  |
| 1700           |      | 8.01 | 12.0 | 16.0 | 20.0 | 24.0 | 28.1  |
| 1800           |      | 8.48 | 12.8 | 17.0 | 21.2 | 25.5 | 29.7  |
| 1900           |      | 8.95 | 13.5 | 17.9 | 22.4 | 26.9 | 31.3  |
| 2000           |      | 9.42 | 14.2 | 18.9 | 23.6 | 28.3 | 33.0  |
| 2100           |      | 9.89 | 14.9 | 19.8 | 24.8 | 29.7 | 34.6  |
| 2200           |      | 10.4 | 15.6 | 20.8 | 25.9 | 31.1 | 36.3  |
| 2300           |      | 10.9 | 16.3 | 21.7 | 27.1 | 32.5 | 37.9* |
| 2400           |      | 11.3 | 17.0 | 22.6 | 28.3 | 33.9 | 39.6* |

## Lengths 1450 mm and 1750 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 1450   | 7                               | 12  | 23  | 42  | 41 | 37 | 28 | 19 |
| 1750   | 8                               | 15  | 28  | 46  | 43 | 41 | 33 | 21 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT<br>(mm) | 325  | 650  | 975  | 1300 | 1625  | 1950  | 2275         |
|----------------|------|------|------|------|-------|-------|--------------|
| 300            | 0.60 | 1.20 | 1.79 |      |       |       |              |
| 400            | 0.82 | 1.63 | 2.44 | 3.25 |       |       |              |
| 500            | 1.04 | 2.08 | 3.11 | 4.15 | 5.18  | 6.22  |              |
| 600            | 1.28 | 2.55 | 3.82 | 5.09 | 6.36  | 7.63  | 8.90         |
| 700            | 1.49 | 2.97 | 4.45 | 5.94 | 7.42  | 8.90  | 10.4         |
| 800            | 1.70 | 3.39 | 5.09 | 6.78 | 8.48  | 10.2  | 11.9         |
| 900            | 1.91 | 3.82 | 5.73 | 7.63 | 9.54  | 11.5  | 13.4         |
| 1000           | 1.12 | 4.24 | 6.36 | 8.48 | 10.6  | 12.8  | 14.9         |
| 1100           | 2.33 | 4.67 | 7.00 | 9.33 | 11.7  | 14.0  | 16.4         |
| 1200           | 2.55 | 5.09 | 7.63 | 10.2 | 12.8  | 15.3  | 17.8         |
| 1300           | 2.76 | 5.51 | 8.27 | 11.1 | 13.8  | 16.6  | 19.3         |
| 1400           |      | 5.94 | 8.90 | 11.9 | 14.9  | 17.8  | 20.8         |
| 1500           |      | 6.36 | 9.54 | 12.8 | 15.9  | 19.1  | 22.3         |
| 1600           |      | 6.78 | 10.2 | 13.6 | 17.0  | 20.4  | 23.8*        |
| 1700           |      | 7.21 | 10.8 | 14.4 | 18.1  | 21.7  | 25.3*        |
| 1800           |      | 7.63 | 11.5 | 15.3 | 19.1  | 22.9* | 26.7*        |
| 1900           |      | 8.06 | 12.1 | 16.1 | 20.2  | 24.2* |              |
| 2000           |      | 8.48 | 12.8 | 17.0 | 21.2  | 25.5  |              |
| 2100           |      | 8.90 | 13.4 | 17.8 | 22.3  | 26.7* |              |
| 2200           |      | 9.33 | 14.0 | 18.7 | 23.3  |       |              |
| 2300           |      | 9.75 | 14.7 | 19.5 | 24.4* |       |              |
| 2400           |      | 10.2 | 15.3 | 20.4 | 25.5* |       | * SEE NOTE 7 |

## Lengths 2050 mm and 2350 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 2050   | 7                               | 9   | 32  | 50  | 47 | 44 | 38 | 24 |
| 2350   | 8                               | 10  | 37  | 50  | 50 | 47 | 44 | 28 |

TABLE OF VOLUME FLOW RATES (m³/s)  
WIDTH (mm)

| HEIGHT<br>(mm) | 325  | 650  | 975  | 1300  | 1625  | 1950  | 2275         |
|----------------|------|------|------|-------|-------|-------|--------------|
| 300            | 0.54 | 1.08 | 1.62 |       |       |       |              |
| 400            | 0.54 | 1.48 | 2.2  | 2.95  |       |       |              |
| 500            | 0.95 | 1.89 | 2.84 | 3.78  | 4.73  | 5.67  |              |
| 600            | 1.17 | 2.34 | 3.50 | 4.67  | 5.83  | 7.00  | 8.16         |
| 700            | 1.36 | 2.72 | 4.08 | 5.44  | 6.80  | 8.16  | 9.52         |
| 800            | 1.56 | 3.11 | 4.67 | 6.22  | 7.77  | 9.33  | 10.9         |
| 900            | 1.75 | 3.50 | 5.25 | 7.00  | 8.75  | 10.5  | 12.3         |
| 1000           | 1.95 | 3.89 | 5.83 | 7.77  | 9.72  | 11.7  | 13.6         |
| 1100           | 2.14 | 4.28 | 6.41 | 8.55  | 10.7  | 12.9  | 15.0         |
| 1200           | 2.34 | 4.67 | 7.00 | 9.33  | 11.7  | 14.0  | 16.4*        |
| 1300           | 2.53 | 5.06 | 7.58 | 10.1  | 12.7  | 15.2  |              |
| 1400           |      | 5.44 | 8.16 | 10.9  | 13.6  | 16.4* |              |
| 1500           |      | 5.83 | 8.75 | 11.7  | 14.6  | 17.5* |              |
| 1600           |      | 6.22 | 9.33 | 12.5  | 15.6* |       |              |
| 1700           |      | 6.61 | 9.91 | 13.3  | 16.6* |       |              |
| 1800           |      | 7.00 | 10.5 | 14.0  | 17.5* |       |              |
| 1900           |      | 7.39 | 11.1 | 14.8  |       |       |              |
| 2000           |      | 7.77 | 11.7 | 15.6* |       |       |              |
| 2100           |      | 8.16 | 12.3 | 16.4* |       |       |              |
| 2200           |      | 8.55 | 12.9 | 17.1* |       |       |              |
| 2300           |      | 8.94 | 13.4 |       |       |       |              |
| 2400           |      | 9.33 | 14.0 |       |       |       | * SEE NOTE 7 |

## NOTES:

1. Tabulated volume flow rates will result at 60 Pa pressure losses for ducted attenuators, at air density of 1.2 kg/m³

2. Pressure loss varies in proportion to density.

3. Pressure loss varies in proportion to the square of the volume flow rate.

4. Maximum allowable volume flow rate is 1.25\* the values given in the tables, pressure loss varying in proportion to the square of the factor.

5. Approximate regenerated noise levels.

| Volume                              | Flow | Rate | NC | A-Scale |
|-------------------------------------|------|------|----|---------|
| Over 0.63 to 0.8 * Tabulated Values |      |      | 30 | 35      |
| Over 0.8 to 1.0 * Tabulated Values  |      |      | 35 | 40      |
| Over 1.0 to 1.25 * Tabulated Values |      |      | 40 | 45      |

6. Tabulated values apply to attenuators ducted both sides. For plenum entry and/or discharge the pressure loss is to be multiplied by the appropriate factor below.

| Length    | Plenum to Duct | Duct to Plenum | Plenum to Plenum |
|-----------|----------------|----------------|------------------|
| 850/1150  | 1.25           | 3.48           | 3.73             |
| 1450/1750 | 1.20           | 3.01           | 3.22             |
| 2050/2350 | 1.17           | 2.69           | 2.86             |

7. Selection marked \* are available only with the shorter attenuator

In collaboration with: **Donkin Fans**

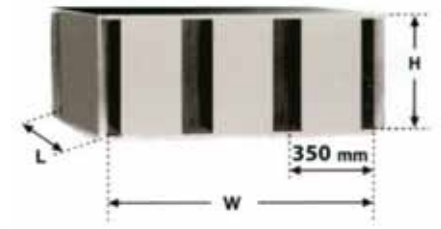




## SERIES PGL

### LOW PRESSURE LOSS RECTANGULAR ATTENUATORS

#### ATTENUATOR PERFORMANCE - AIR WAY CODE D



#### Lengths 850 mm and 1150 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 850    | 6                               | 7   | 14  | 22  | 30 | 23 | 15 | 12 |
| 1150   | 6                               | 9   | 18  | 31  | 34 | 28 | 19 | 13 |

TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |      |      |      |      |
|--------|------------|------|------|------|------|------|
| (mm)   | 350        | 700  | 1050 | 1400 | 1750 | 2100 |
| 300    | 0.83       | 1.66 | 2.49 |      |      |      |
| 400    | 1.13       | 2.26 | 3.39 | 4.52 |      |      |
| 500    | 1.45       | 2.89 | 4.33 | 5.78 | 7.22 |      |
| 600    | 1.78       | 3.55 | 5.32 | 7.09 | 8.86 | 10.7 |
| 700    | 2.07       | 4.14 | 6.21 | 8.27 | 10.4 | 12.4 |
| 800    | 2.37       | 4.73 | 7.09 | 9.45 | 11.9 | 14.2 |
| 900    | 2.66       | 5.32 | 7.98 | 10.7 | 13.3 | 16.0 |
| 1000   | 2.96       | 5.91 | 8.86 | 11.9 | 14.8 | 17.8 |
| 1100   | 3.25       | 6.50 | 9.75 | 13.0 | 16.3 | 19.5 |
| 1200   | 3.55       | 7.09 | 10.7 | 14.2 | 17.8 | 21.3 |
| 1300   | 3.84       | 7.68 | 11.6 | 15.4 | 19.2 | 23.1 |
| 1400   | 4.14       | 8.27 | 12.4 | 16.6 | 20.7 | 24.8 |
| 1500   |            | 8.86 | 13.3 | 17.8 | 22.2 | 26.6 |
| 1600   |            | 9.45 | 14.2 | 18.9 | 23.7 | 28.4 |
| 1700   |            | 10.1 | 15.1 | 20.1 | 25.1 | 30.2 |
| 1800   |            | 10.7 | 16.0 | 21.3 | 26.6 | 31.9 |
| 1900   |            | 11.3 | 16.9 | 22.5 | 28.1 | 33.7 |
| 2000   |            | 11.9 | 17.8 | 23.7 | 29.6 | 35.5 |
| 2100   |            | 12.4 | 18.6 | 24.8 | 31.0 | 37.2 |
| 2200   |            | 13.0 | 19.5 | 26.0 | 32.5 | 39.0 |
| 2300   |            | 13.6 | 20.4 | 27.2 | 34.0 | 40.8 |
| 2400   |            | 14.2 | 21.3 | 28.4 | 35.5 | 42.6 |

#### Lengths 1450 mm and 1750 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 1450   | 7                               | 11  | 21  | 39  | 39 | 34 | 24 | 15 |
| 1750   | 7                               | 14  | 25  | 44  | 43 | 38 | 29 | 17 |

TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |      |      |       |             |
|--------|------------|------|------|------|-------|-------------|
| (mm)   | 350        | 700  | 1050 | 1400 | 1750  | 2100        |
| 300    | 0.74       | 1.47 | 2.21 |      |       |             |
| 400    | 1.01       | 2.02 | 3.03 | 4.04 |       |             |
| 500    | 1.30       | 2.60 | 3.89 | 5.19 | 6.49  |             |
| 600    | 1.61       | 3.21 | 4.82 | 6.42 | 8.03  | 9.63        |
| 700    | 1.88       | 3.75 | 5.62 | 7.49 | 9.37  | 11.3        |
| 800    | 2.14       | 4.28 | 6.42 | 8.56 | 10.7  | 12.9        |
| 900    | 2.41       | 4.82 | 7.23 | 9.63 | 12.1  | 14.5        |
| 1000   | 2.68       | 5.35 | 8.03 | 10.7 | 13.4  | 16.1        |
| 1100   | 2.95       | 5.89 | 8.83 | 11.8 | 14.8  | 17.7        |
| 1200   | 3.21       | 6.42 | 9.63 | 12.9 | 16.1  | 19.3        |
| 1300   | 3.48       | 6.96 | 10.5 | 14.0 | 17.4  | 20.9        |
| 1400   | 3.75       | 7.49 | 11.3 | 15.0 | 18.8  | 22.5        |
| 1500   |            | 8.03 | 12.1 | 16.1 | 20.1  | 24.1        |
| 1600   |            | 8.56 | 12.9 | 17.2 | 21.4  | 25.7        |
| 1700   |            | 9.10 | 13.7 | 18.2 | 22.8  | 27.3*       |
| 1800   |            | 9.63 | 14.5 | 19.3 | 24.1  | 28.9*       |
| 1900   |            | 10.2 | 15.3 | 20.4 | 25.5  | 30.5*       |
| 2000   |            | 10.7 | 16.1 | 21.4 | 26.8* |             |
| 2100   |            | 11.3 | 16.9 | 22.5 | 28.1* |             |
| 2200   |            | 11.8 | 17.7 | 23.6 | 29.5* |             |
| 2300   |            | 12.5 | 18.5 | 24.7 | 30.8* |             |
| 2400   |            | 12.9 | 19.3 | 25.7 |       | *SEE NOTE 7 |

#### Lengths 2050 mm and 2350 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 2050   | 8                               | 16  | 30  | 48  | 46 | 42 | 34 | 20 |
| 2350   | 9                               | 19  | 34  | 50  | 48 | 46 | 39 | 22 |

TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |      |       |       |       |
|--------|------------|------|------|-------|-------|-------|
| (mm)   | 350        | 700  | 1050 | 1400  | 1750  | 2100  |
| 300    | 0.68       | 1.35 | 2.03 |       |       |       |
| 400    | 0.93       | 1.86 | 2.78 | 3.71  |       |       |
| 500    | 1.20       | 2.39 | 3.58 | 4.77  | 5.96  |       |
| 600    | 1.48       | 2.96 | 4.43 | 5.91  | 7.38  | 8.86  |
| 700    | 1.73       | 3.45 | 5.17 | 6.89  | 8.61  | 10.4  |
| 800    | 1.97       | 3.94 | 5.91 | 7.87  | 9.84  | 11.8  |
| 900    | 2.22       | 4.43 | 6.64 | 8.86  | 11.1  | 13.3  |
| 1000   | 2.46       | 4.92 | 7.38 | 9.84  | 12.3  | 14.8  |
| 1100   | 2.71       | 5.41 | 8.12 | 10.9  | 13.6  | 16.3  |
| 1200   | 2.96       | 5.91 | 8.86 | 11.8  | 14.8  | 17.7  |
| 1300   | 3.20       | 6.40 | 9.60 | 12.8  | 16.0  | 19.2* |
| 1400   | 3.45       | 6.89 | 10.4 | 13.8  | 17.3  |       |
| 1500   |            | 7.38 | 11.1 | 14.8  | 18.5* |       |
| 1600   |            | 7.87 | 11.8 | 15.8  | 19.7* |       |
| 1700   |            | 8.37 | 12.6 | 16.8  |       |       |
| 1800   |            | 8.86 | 13.3 | 17.7  |       |       |
| 1900   |            | 9.35 | 14.1 | 18.7* |       |       |
| 2000   |            | 9.84 | 14.8 | 19.7* |       |       |
| 2100   |            | 10.4 | 15.5 |       |       |       |
| 2200   |            | 10.9 | 16.3 |       |       |       |
| 2300   |            | 11.4 | 17.0 |       |       |       |
| 2400   |            | 11.8 | 17.7 |       |       |       |

\*SEE NOTE 7

#### NOTES:

- Tabulated volume flow rates will result at 60 Pa pressure losses for ducted attenuators, at air density of 1.2 kg/m³
- Pressure loss varies in proportion to density.
- Pressure loss varies in proportion to the square of the volume flow rate.
- Maximum allowable volume flow rate is 1.25\* the values given in the tables, pressure loss varying in proportion to the square of the factor.
- Approximate regenerated noise levels.

| Volume             | Flow             | Rate | NC | A-Scale |
|--------------------|------------------|------|----|---------|
| Over 0.63 to 0.8 * | Tabulated Values |      | 30 | 35      |
| Over 0.8 to 1.0 *  | Tabulated Values |      | 35 | 40      |
| Over 1.0 to 1.25 * | Tabulated Values |      | 40 | 45      |

- Tabulated values apply to attenuators ducted both sides. For plenum entry and/or discharge the pressure loss is to be multiplied by the appropriate factor below.

| Length    | Plenum to Duct | Duct to Plenum | Plenum to Plenum |
|-----------|----------------|----------------|------------------|
| 850/1150  | 1.29           | 3.83           | 4.10             |
| 1450/1750 | 1.24           | 3.33           | 3.54             |
| 2050/2350 | 1.20           | 2.96           | 3.15             |

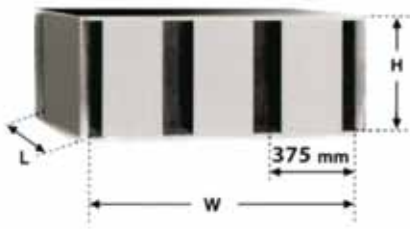
- Selection marked \* are available only with the shorter attenuator

in collaboration with: **Donkin Fans**





## SERIES PGL

LOW PRESSURE LOSS RECTANGULAR ATTENUATORS  
ATTENUATOR PERFORMANCE - AIR WAY CODE E

## Lengths 850 mm and 1150 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 850    | 5                               | 7   | 13  | 20  | 26 | 20 | 13 | 9  |
| 1150   | 6                               | 8   | 17  | 27  | 31 | 25 | 15 | 10 |

## TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |      |      |      |       |
|--------|------------|------|------|------|------|-------|
| (mm)   | 375        | 750  | 1125 | 1500 | 1875 | 2250  |
| 300    | 1.01       | 2.02 | 3.03 |      |      |       |
| 400    | 1.38       | 2.75 | 4.13 | 5.50 |      |       |
| 500    | 1.76       | 3.52 | 5.28 | 7.04 | 8.80 |       |
| 600    | 2.17       | 4.33 | 6.50 | 8.66 | 10.9 | 13.0  |
| 700    | 2.53       | 5.06 | 7.58 | 10.1 | 12.7 | 15.2  |
| 800    | 2.89       | 5.78 | 8.66 | 11.6 | 14.5 | 17.4  |
| 900    | 3.25       | 6.50 | 9.75 | 13.0 | 16.3 | 19.5  |
| 1000   | 3.61       | 7.22 | 10.9 | 14.5 | 18.1 | 21.7  |
| 1100   | 3.97       | 7.94 | 11.9 | 15.9 | 19.9 | 23.9  |
| 1200   | 4.33       | 8.66 | 13.0 | 17.4 | 21.7 | 26.0  |
| 1300   | 4.69       | 9.39 | 14.1 | 18.8 | 23.5 | 28.2  |
| 1400   | 5.06       | 10.1 | 15.2 | 20.2 | 25.3 | 30.4  |
| 1500   | 5.42       | 10.9 | 16.3 | 21.7 | 27.1 | 32.5  |
| 1600   |            | 11.6 | 17.4 | 23.1 | 28.9 | 34.7  |
| 1700   |            | 12.3 | 18.4 | 24.6 | 30.7 | 36.8  |
| 1800   |            | 13.0 | 19.5 | 26.0 | 32.5 | 39.0  |
| 1900   |            | 13.8 | 20.6 | 27.5 | 34.3 | 41.2  |
| 2000   |            | 14.5 | 21.7 | 28.9 | 36.1 | 43.3  |
| 2100   |            | 15.2 | 22.8 | 30.4 | 37.9 | 45.5  |
| 2200   |            | 15.9 | 23.9 | 31.8 | 39.7 | 47.7  |
| 2300   |            | 16.6 | 24.9 | 33.2 | 41.5 | 49.8  |
| 2400   |            | 17.4 | 26.0 | 34.7 | 43.3 | 52.0* |

## Lengths 1450 mm and 1750 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 1450   | 7                               | 10  | 20  | 34  | 37 | 29 | 18 | 12 |
| 1750   | 7                               | 12  | 24  | 39  | 40 | 34 | 22 | 13 |

## TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |      |       |       |             |
|--------|------------|------|------|-------|-------|-------------|
| (mm)   | 375        | 750  | 1125 | 1500  | 1875  | 2250        |
| 300    | 0.92       | 1.84 | 2.75 |       |       |             |
| 400    | 1.26       | 2.51 | 3.76 | 5.01  |       |             |
| 500    | 1.61       | 3.22 | 4.82 | 6.43  | 8.03  |             |
| 600    | 1.99       | 3.97 | 5.95 | 7.93  | 9.91  | 11.9        |
| 700    | 2.32       | 4.63 | 6.94 | 9.25  | 11.6  | 13.9        |
| 800    | 2.65       | 5.29 | 7.93 | 10.6  | 13.2  | 15.9        |
| 900    | 2.98       | 5.95 | 8.92 | 11.9  | 14.9  | 17.9        |
| 1000   | 3.31       | 6.61 | 9.91 | 13.2  | 16.6  | 19.9        |
| 1100   | 3.64       | 7.27 | 10.9 | 14.6  | 18.2  | 21.8        |
| 1200   | 3.97       | 7.93 | 11.9 | 15.9  | 19.9  | 23.8        |
| 1300   | 4.30       | 8.59 | 12.9 | 17.2  | 21.5  | 25.8        |
| 1400   | 4.63       | 9.25 | 13.9 | 18.5  | 23.2  | 27.8        |
| 1500   | 4.96       | 9.91 | 14.9 | 19.9  | 24.8  | 29.8        |
| 1600   |            | 10.6 | 15.9 | 21.2  | 26.5  | 31.7*       |
| 1700   |            | 11.3 | 16.9 | 22.5  | 28.1  | 33.7*       |
| 1800   |            | 11.9 | 17.9 | 23.8  | 29.8  | 35.7*       |
| 1900   |            | 12.6 | 18.9 | 25.1  | 31.4* |             |
| 2000   |            | 13.2 | 19.9 | 26.5  | 33.1  |             |
| 2100   |            | 13.9 | 20.8 | 27.8  | 34.7* |             |
| 2200   |            | 14.6 | 21.8 | 29.1  | 36.4* |             |
| 2300   |            | 15.2 | 22.8 | 30.4  |       |             |
| 2400   |            | 15.9 | 23.8 | 31.7* |       | *SEE NOTE 7 |

## Lengths 2050 mm and 2350 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 2050   | 7                               | 15  | 28  | 44  | 45 | 38 | 25 | 14 |
| 2350   | 8                               | 17  | 32  | 47  | 50 | 42 | 28 | 15 |

## TABLE OF VOLUME FLOW RATES (m³/s)

| HEIGHT | WIDTH (mm) |      |       |       |       |             |
|--------|------------|------|-------|-------|-------|-------------|
| (mm)   | 375        | 750  | 1125  | 1500  | 1875  | 2250        |
| 300    | 0.84       | 1.67 | 2.51  |       |       |             |
| 400    | 1.15       | 2.30 | 3.45  | 4.59  |       |             |
| 500    | 1.49       | 2.97 | 4.45  | 5.94  | 7.42  |             |
| 600    | 1.85       | 3.69 | 5.54  | 7.38  | 9.23  | 11.1        |
| 700    | 2.16       | 4.31 | 6.46  | 8.61  | 10.8  | 13.0        |
| 800    | 2.46       | 4.92 | 7.38  | 9.84  | 12.3  | 14.8        |
| 900    | 2.77       | 5.54 | 8.30  | 11.1  | 13.9  | 16.6        |
| 1000   | 3.08       | 6.15 | 9.23  | 12.3  | 15.4  | 18.5        |
| 1100   | 3.39       | 6.77 | 10.2  | 13.6  | 16.9  | 20.3        |
| 1200   | 3.69       | 7.38 | 11.1  | 14.8  | 18.5  | 22.2*       |
| 1300   | 4.00       | 8.00 | 12.0  | 16.0  | 20.0  | 24.0*       |
| 1400   | 4.31       | 8.61 | 13.0  | 17.3  | 21.6* |             |
| 1500   | 4.62       | 9.23 | 13.9  | 18.5  | 23.1* |             |
| 1600   |            | 9.84 | 14.8  | 19.7  |       |             |
| 1700   |            | 10.5 | 15.7  | 20.9  |       |             |
| 1800   |            | 11.1 | 16.6  | 22.2* |       |             |
| 1900   |            | 11.7 | 17.6  | 23.4* |       |             |
| 2000   |            | 12.3 | 18.5  |       |       |             |
| 2100   |            | 13.0 | 19.4  |       |       |             |
| 2200   |            | 13.6 | 20.3  |       |       |             |
| 2300   |            | 14.2 | 21.3* |       |       |             |
| 2400   |            | 14.8 | 22.2* |       |       | *SEE NOTE 7 |

## NOTES:

1. Tabulated volume flow rates will result at 60 Pa pressure losses for ducted attenuators, at air density of 1.2 kg/m³

2. Pressure loss varies in proportion to density.

3. Pressure loss varies in proportion to the square of the volume flow rate.

4. Maximum allowable volume flow rate is 1.25\* the values given in the tables, pressure loss varying in proportion to the square of the factor.

5. Approximate regenerated noise levels.

| Volume Flow Rate                    | NC | A-Scale |
|-------------------------------------|----|---------|
| Over 0.63 to 0.8 * Tabulated Values | 30 | 35      |
| Over 0.8 to 1.0 * Tabulated Values  | 35 | 40      |
| Over 1.0 to 1.25 * Tabulated Values | 40 | 45      |

6. Tabulated values apply to attenuators ducted both sides. For plenum entry and/or discharge the pressure loss is to be multiplied by the appropriate factor below.

| Length    | Plenum to Duct | Duct to Plenum | Plenum to Plenum |
|-----------|----------------|----------------|------------------|
| 850/1150  | 1.35           | 4.19           | 4.53             |
| 1450/1750 | 1.28           | 3.68           | 3.96             |
| 2050/2350 | 1.25           | 3.32           | 3.56             |

7. Selection marked \* are available only with the shorter attenuator

In collaboration with: Donkin Fans

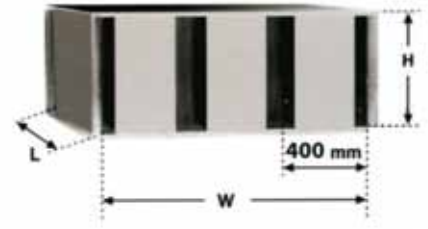




## SERIES PGL

### LOW PRESSURE LOSS RECTANGULAR ATTENUATORS

#### ATTENUATOR PERFORMANCE - AIR WAY CODE F



#### Lengths 850 mm and 1150 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 850    | 5                               | 6   | 12  | 18  | 21 | 16 | 11 | 7  |
| 1150   | 5                               | 8   | 16  | 24  | 28 | 21 | 12 | 8  |

**TABLE OF VOLUME FLOW RATES (m³/s)**  
WIDTH (mm)

| HEIGHT (mm) | 400  | 800  | 1200 | 1600 | 2000  |
|-------------|------|------|------|------|-------|
| 300         | 1.20 | 2.41 | 3.61 |      |       |
| 400         | 1.65 | 3.29 | 4.93 | 6.57 |       |
| 500         | 2.11 | 4.21 | 6.32 | 8.43 | 10.6  |
| 600         | 2.60 | 5.20 | 7.79 | 10.4 | 13.0  |
| 700         | 3.03 | 6.06 | 9.09 | 12.2 | 15.2  |
| 800         | 3.47 | 6.93 | 10.4 | 13.9 | 17.3  |
| 900         | 3.90 | 7.79 | 11.7 | 15.6 | 19.5  |
| 1000        | 4.33 | 8.66 | 13.0 | 17.3 | 21.7  |
| 1100        | 4.76 | 9.52 | 14.3 | 19.1 | 23.8  |
| 1200        | 5.20 | 10.4 | 15.6 | 20.8 | 26.0  |
| 1300        | 5.63 | 11.3 | 16.9 | 22.5 | 28.2  |
| 1400        | 6.06 | 12.2 | 18.2 | 24.3 | 30.3  |
| 1500        | 6.50 | 13.0 | 19.5 | 26.0 | 32.5  |
| 1600        | 6.93 | 13.9 | 20.8 | 27.7 | 34.7  |
| 1700        |      | 14.8 | 22.1 | 29.5 | 36.8  |
| 1800        |      | 15.6 | 23.4 | 31.2 | 39.0  |
| 1900        |      | 16.5 | 24.7 | 32.9 | 41.2  |
| 2000        |      | 17.3 | 26.0 | 34.7 | 43.3  |
| 2100        |      | 18.2 | 27.3 | 36.4 | 45.5  |
| 2200        |      | 19.1 | 28.6 | 38.1 | 47.6  |
| 2300        |      | 19.9 | 29.9 | 39.9 | 49.8  |
| 2400        |      | 20.8 | 31.2 | 41.6 | 52.0* |

#### Lengths 1450 mm and 1750 mm

| LENGTH | STATIC INSERTION LOSS |     |      |     |      |    |                |    |
|--------|-----------------------|-----|------|-----|------|----|----------------|----|
|        | OCTAVE                |     | BAND |     | MEAN |    | FREQUENCY (Hz) |    |
|        | 63                    | 125 | 250  | 500 | 1K   | 2K | 4K             | 8K |
| 1450   | 6                     | 10  | 20   | 30  | 35   | 25 | 14             | 9  |
| 1750   | 6                     | 12  | 23   | 35  | 39   | 28 | 15             | 10 |

**TABLE OF VOLUME FLOW RATES (m³/s)**  
WIDTH (mm)

| HEIGHT (mm) | 400  | 800  | 1200 | 1600  | 2000  |
|-------------|------|------|------|-------|-------|
| 300         | 1.11 | 2.22 | 3.32 |       |       |
| 400         | 1.52 | 3.04 | 4.56 | 6.07  |       |
| 500         | 1.96 | 3.91 | 5.86 | 7.82  | 9.77  |
| 600         | 2.42 | 4.84 | 7.26 | 9.68  | 12.1  |
| 700         | 2.83 | 5.65 | 8.47 | 11.3  | 14.2  |
| 800         | 3.23 | 6.46 | 9.68 | 12.9  | 16.2  |
| 900         | 3.63 | 7.26 | 10.9 | 14.6  | 18.2  |
| 1000        | 4.04 | 8.07 | 12.1 | 16.2  | 20.2  |
| 1100        | 4.44 | 8.88 | 13.3 | 17.8  | 22.2  |
| 1200        | 4.84 | 9.68 | 14.6 | 19.4  | 24.2  |
| 1300        | 5.25 | 10.5 | 15.8 | 21.0  | 26.3  |
| 1400        | 5.65 | 11.3 | 17.0 | 22.6  | 28.3  |
| 1500        | 6.05 | 12.1 | 18.2 | 24.2  | 30.3  |
| 1600        | 6.46 | 12.9 | 19.4 | 25.8  | 32.3  |
| 1700        |      | 13.8 | 20.6 | 27.5  | 34.3  |
| 1800        |      | 14.6 | 21.8 | 29.1  | 36.3* |
| 1900        |      | 15.4 | 23.0 | 30.7  | 38.3* |
| 2000        |      | 16.2 | 24.2 | 32.3  | 40.4* |
| 2100        |      | 17.0 | 25.4 | 33.9  |       |
| 2200        |      | 17.8 | 26.7 | 35.5* |       |
| 2300        |      | 18.6 | 27.9 | 37.1* |       |
| 2400        |      | 19.4 | 29.1 | 38.8* |       |

\*SEE NOTE 7

#### Lengths 2050 mm and 2350 mm

| LENGTH | STATIC INSERTION LOSS           |     |     |     |    |    |    |    |
|--------|---------------------------------|-----|-----|-----|----|----|----|----|
|        | OCTAVE BAND MEAN FREQUENCY (Hz) |     |     |     |    |    |    |    |
|        | 63                              | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| 2050   | 7                               | 14  | 27  | 40  | 45 | 32 | 17 | 10 |
| 2350   | 8                               | 16  | 30  | 45  | 50 | 36 | 18 | 11 |

**TABLE OF VOLUME FLOW RATES (m³/s)**  
WIDTH (mm)

| HEIGHT (mm) | 400  | 800  | 1200  | 1600  | 2000  |
|-------------|------|------|-------|-------|-------|
| 300         | 1.02 | 2.04 | 3.06  |       |       |
| 400         | 1.41 | 2.81 | 4.22  | 5.63  |       |
| 500         | 1.83 | 3.66 | 5.48  | 7.31  | 9.13  |
| 600         | 2.29 | 4.57 | 6.86  | 9.14  | 11.5  |
| 700         | 2.67 | 5.33 | 8.00  | 10.7  | 13.4  |
| 800         | 3.05 | 6.10 | 9.14  | 12.2  | 15.3  |
| 900         | 3.43 | 6.86 | 10.3  | 13.7  | 17.2  |
| 1000        | 3.81 | 7.62 | 11.5  | 15.3  | 19.1  |
| 1100        | 4.19 | 8.38 | 12.6  | 16.8  | 21.0  |
| 1200        | 4.57 | 9.14 | 13.7  | 18.3  | 22.9  |
| 1300        | 4.95 | 9.90 | 14.9  | 19.8  | 24.8* |
| 1400        | 5.33 | 10.7 | 16.0  | 21.4  | 26.7* |
| 1500        | 5.71 | 11.5 | 17.2  | 22.9  |       |
| 1600        | 6.10 | 12.2 | 18.3  | 24.4* |       |
| 1700        |      | 13.0 | 19.5  | 25.9* |       |
| 1800        |      | 13.7 | 20.6  | 27.4  |       |
| 1900        |      | 14.5 | 21.7  |       |       |
| 2000        |      | 15.3 | 22.9  |       |       |
| 2100        |      | 16.0 | 24.0  |       |       |
| 2200        |      | 16.8 | 25.2* |       |       |
| 2300        |      | 17.6 | 26.3* |       |       |
| 2400        |      | 18.3 | 27.4* |       |       |

\*SEE NOTE 7

#### NOTES:

1. Tabulated volume flow rates will result at 60 Pa pressure losses for ducted attenuators, at air density of 1.2 kg/m³
2. Pressure loss varies in proportion to density.
3. Pressure loss varies in proportion to the square of the volume flow rate.
4. Maximum allowable volume flow rate is 1.25\* the values given in the tables, pressure loss varying in proportion to the square of the factor.
5. Approximate regenerated noise levels.

| Volume             | Flow             | Rate | NC | A-Scale |
|--------------------|------------------|------|----|---------|
| Over 0.63 to 0.8 * | Tabulated Values |      | 30 | 35      |
| Over 0.8 to 1.0 *  | Tabulated Values |      | 35 | 40      |
| Over 1.0 to 1.25 * | Tabulated Values |      | 40 | 45      |

6. Tabulated values apply to attenuators ducted both sides. For plenum entry and/or discharge the pressure loss is to be multiplied by the appropriate factor below.

| Length    | Plenum to Duct | Duct to Plenum | Plenum to Plenum |
|-----------|----------------|----------------|------------------|
| 850/1150  | 1.40           | 4.61           | 5.03             |
| 1450/1750 | 1.34           | 4.13           | 4.50             |
| 2050/2350 | 1.31           | 3.79           | 4.12             |

7. Selection marked \* are available only with the shorter attenuator

in collaboration with: **Donkin Fans**





**SERIES SILAX AND SILAX-P** cylindrical attenuators have been designed for the purpose of reducing airborne fan noise from the inlet and/or discharge of axial flow fans. They are also suitable for installation on the inlet of centrifugal fans or in sections of ducting remote from the fans. Series SILAX and SILAX-P cylindrical attenuators are available in sizes suitable for fitting directly to all DONKIN axial flow fans.

### Series SILAX

Series SILAX attenuators comprise outer casings incorporating acoustic materials retained between the casings and internal wire mesh cylinders. Perforated steel internal cylinders have the same diameters as the nominal attenuator sizes, i.e. the size of the fan or duct to which the attenuator is connected.

Series SILAX attenuators fit directly to the fans or ducts, by bolting to threaded fasteners integral with the attenuator flanges. The positions of these fasteners correspond to the flange drilling of the equivalent size of DONKIN axial flow fans. Series SILAX attenuators cause a negligible resistance to the flow of air.

### Series SILAX-P

Series SILAX-P attenuators contain centrally mounted, cylindrical acoustic pods. The outer sections of the attenuators are identical to the Series SILAX attenuators. Removal of the pod from the SILAX-P attenuator converts the attenuator to a SILAX unit.

The incorporation of the central pod considerably improves the acoustic performance of the attenuator, but also creates a resistance to the flow of air. It is normal practice to select SILAX-P attenuators for a pressure loss not exceeding 60Pa.

### Sizes

Series SILAX and SILAX-P attenuators are available in a range of standard sizes matching all DONKIN axial flow fans from 315mm to 2000mm nominal diameter. The units are available in lengths of 1, 1.5 and 2.0 diameters. Non standard sizes will be manufactured to customer requirements.

### CONSTRUCTION

- Casings are constructed from pre-galvanised steel sheet incorporating lock formed seams. Standard casings are designed to withstand pressures up to 2500Pa.

- Flanges. Sizes up to and including 1000mm in diameter, incorporate spun flanges, manufactured from pregalvanised steel sheet. Threaded fasteners are projection welded to the inside of the flanges. These flanges are primed and enamel painted prior to assembly.

- Acoustic materials. The acoustic infill is a patented sound absorbing material consisting of glass fibre material selected for the combination of density, resilience and porosity, that achieves optimum broadband acoustic performance. This patented sound absorbing material satisfies the requirements of BS 476:Part 7, class 1 spread of flame. Standard material limits the attenuator to be used at a maximum temperature of 80° C.

- Inner Cylinder. The casing inner cylinder which retains the acoustic material is constructed from pre-galvanised perforated sheet

thickness of 0.7 mm.

- Acoustic Pod (Series SILAX-P only) This pod comprises a cylinder constructed from pre-galvanised sheet with a thickness of 0.7 mm, to which are attached moulded fiberglass, or spun steel, fairings at both ends, designed to minimize the resistance to airflow. The pod is filled internally with patented acoustic material.

### PERFORMANCE

- Acoustic Performance. Dynamic Attenuation values are derived from tests conducted in accordance with BS 848. The Dynamic Attenuation values constitute the numerical difference between the sound power level of the fan with the attenuator replaced by a straight duct of equivalent length to the attenuator.

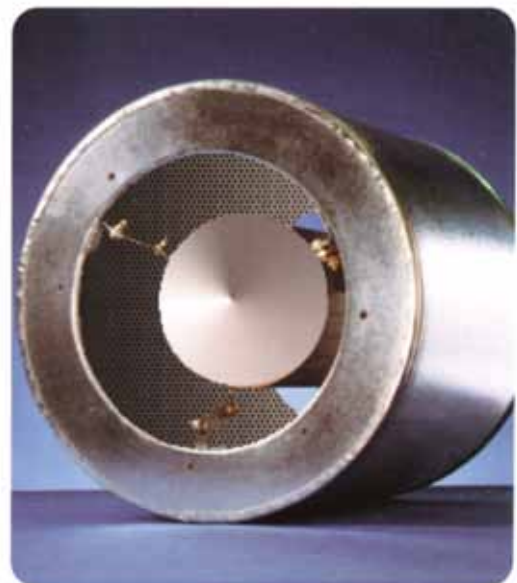
- Aerodynamic Performance. The pressure loss of Series SILAX attenuators can be considered as negligible for the range of velocities normally encountered in ventilation and air-conditioning systems. The pressure loss versus volume for the range of SILAX-P attenuators is illustrated graphically in this brochure. The pressure loss values are derived from tests conducted in accordance with BS 848, and are equal to the difference in fan performance resulting from the attachment of the attenuator.

### OPTIONAL FEATURES

Various optional extras are available including;

- Counter flanges.
- Mounting feet.
- Inlet cones & inlet cone Screens or standard screens
- Special Paint Finishes.
- Heavy Welded Construction for high pressures or rigorous industrial or mining applications.
- High temperature construction i.e. above 80° C.
- Melines / clean seal available for special / hospital applications.

All technical information contained herein is subject to change without prior notice.



in collaboration with:





## ACCUSTIC PERFORMANCE - Dynamic attenuation values in dB

| FAN<br>SIZE | SILAX (1.0 D)              |     |     |     |    |    |    |    | SILAX (1.5 D)              |     |     |     |    |    |    |    | SILAX (2 D)                |     |     |     |    |    |    |    |
|-------------|----------------------------|-----|-----|-----|----|----|----|----|----------------------------|-----|-----|-----|----|----|----|----|----------------------------|-----|-----|-----|----|----|----|----|
|             | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    |
|             | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 315         | 2                          | 4   | 6   | 10  | 14 | 10 | 7  | 8  | 3                          | 6   | 9   | 14  | 18 | 14 | 10 | 10 | 4                          | 7   | 11  | 17  | 21 | 17 | 13 | 12 |
| 400         | 2                          | 4   | 6   | 10  | 14 | 10 | 7  | 8  | 3                          | 6   | 9   | 14  | 18 | 14 | 10 | 10 | 4                          | 7   | 11  | 17  | 21 | 17 | 13 | 12 |
| 500         | 2                          | 4   | 6   | 10  | 14 | 10 | 7  | 8  | 3                          | 6   | 9   | 14  | 18 | 14 | 10 | 10 | 4                          | 7   | 11  | 17  | 21 | 17 | 13 | 12 |
| 560         | 2                          | 4   | 6   | 10  | 14 | 10 | 7  | 8  | 3                          | 6   | 9   | 14  | 18 | 14 | 10 | 10 | 4                          | 7   | 11  | 17  | 21 | 17 | 13 | 12 |
| 630         | 3                          | 4   | 8   | 14  | 14 | 9  | 8  | 7  | 5                          | 6   | 11  | 18  | 18 | 12 | 11 | 8  | 6                          | 8   | 13  | 22  | 22 | 14 | 13 | 9  |
| 710         | 3                          | 4   | 8   | 14  | 14 | 9  | 8  | 7  | 5                          | 6   | 11  | 18  | 18 | 12 | 11 | 8  | 6                          | 8   | 13  | 22  | 22 | 14 | 13 | 9  |
| 800         | 3                          | 4   | 8   | 14  | 14 | 9  | 8  | 7  | 5                          | 6   | 11  | 18  | 18 | 12 | 11 | 8  | 6                          | 8   | 13  | 22  | 22 | 14 | 13 | 9  |
| 900         | 3                          | 4   | 9   | 14  | 12 | 8  | 7  | 7  | 5                          | 6   | 11  | 18  | 15 | 10 | 9  | 9  | 6                          | 8   | 13  | 21  | 18 | 12 | 11 | 10 |
| 1000        | 3                          | 4   | 9   | 14  | 12 | 8  | 7  | 7  | 5                          | 6   | 11  | 18  | 15 | 10 | 9  | 9  | 6                          | 8   | 13  | 21  | 18 | 12 | 11 | 10 |
| 1120        | 3                          | 4   | 9   | 14  | 12 | 8  | 7  | 7  | 5                          | 6   | 11  | 18  | 15 | 10 | 9  | 9  | 6                          | 8   | 13  | 21  | 18 | 12 | 11 | 10 |
| 1250        | 3                          | 4   | 9   | 14  | 12 | 8  | 7  | 7  | 5                          | 6   | 11  | 18  | 15 | 10 | 9  | 9  | 6                          | 8   | 13  | 21  | 18 | 12 | 11 | 10 |
| 1400        | 4                          | 5   | 10  | 14  | 11 | 7  | 6  | 6  | 5                          | 6   | 11  | 17  | 15 | 10 | 9  | 8  | 5                          | 7   | 12  | 19  | 18 | 13 | 11 | 9  |
| 1600        | 4                          | 5   | 10  | 14  | 11 | 7  | 6  | 6  | 5                          | 6   | 11  | 17  | 15 | 10 | 9  | 8  | 5                          | 7   | 12  | 19  | 18 | 13 | 11 | 9  |
| 1800        | 4                          | 5   | 10  | 14  | 11 | 7  | 6  | 6  | -                          | -   | -   | -   | -  | -  | -  | -  | 5                          | 7   | 12  | 19  | 18 | 13 | 11 | 9  |
| 2000        | 4                          | 5   | 10  | 14  | 11 | 7  | 6  | 6  | -                          | -   | -   | -   | -  | -  | -  | -  | 5                          | 7   | 12  | 19  | 18 | 13 | 11 | 9  |

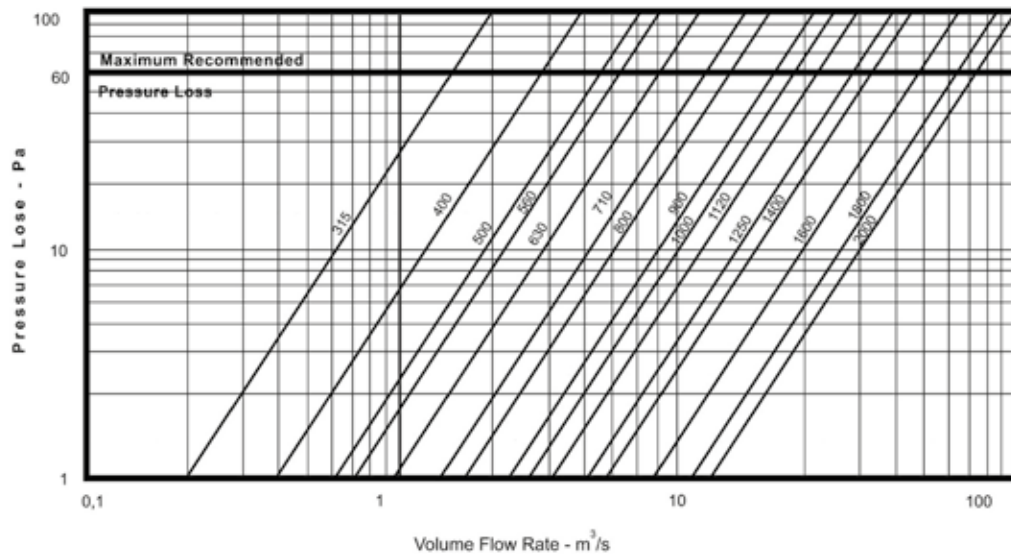
| FAN<br>SIZE | SILAX - P (1.0 D)          |     |     |     |    |    |    |    | SILAX - P (1.5 D)          |     |     |     |    |    |    |    | SILAX - P (2 D)            |     |     |     |    |    |    |    |
|-------------|----------------------------|-----|-----|-----|----|----|----|----|----------------------------|-----|-----|-----|----|----|----|----|----------------------------|-----|-----|-----|----|----|----|----|
|             | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    | OCTAVE BAND MEAN FREQUENCY |     |     |     |    |    |    |    |
|             | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k | 63                         | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 315         | 3                          | 5   | 7   | 11  | 17 | 16 | 13 | 12 | 4                          | 6   | 9   | 14  | 19 | 16 | 13 | 12 | 4                          | 7   | 11  | 17  | 21 | 17 | 13 | 12 |
| 400         | 3                          | 5   | 7   | 11  | 17 | 16 | 13 | 12 | 5                          | 7   | 10  | 15  | 20 | 19 | 17 | 15 | 6                          | 9   | 14  | 20  | 24 | 23 | 20 | 19 |
| 500         | 3                          | 5   | 7   | 11  | 17 | 16 | 13 | 12 | 5                          | 7   | 10  | 15  | 20 | 19 | 17 | 15 | 6                          | 9   | 14  | 20  | 24 | 23 | 20 | 19 |
| 560         | 3                          | 5   | 7   | 11  | 17 | 16 | 13 | 12 | 5                          | 7   | 10  | 15  | 20 | 19 | 17 | 15 | 6                          | 9   | 14  | 20  | 24 | 23 | 20 | 19 |
| 630         | 4                          | 5   | 9   | 16  | 13 | 16 | 15 | 10 | 5                          | 8   | 12  | 21  | 21 | 21 | 19 | 13 | 7                          | 10  | 15  | 25  | 29 | 26 | 23 | 16 |
| 710         | 4                          | 5   | 9   | 16  | 13 | 16 | 15 | 10 | 5                          | 8   | 12  | 21  | 21 | 21 | 19 | 13 | 7                          | 10  | 15  | 25  | 29 | 26 | 23 | 16 |
| 800         | 4                          | 5   | 9   | 16  | 13 | 16 | 15 | 10 | 5                          | 8   | 12  | 21  | 21 | 21 | 19 | 13 | 7                          | 10  | 15  | 25  | 29 | 26 | 23 | 16 |
| 900         | 4                          | 5   | 10  | 18  | 17 | 13 | 11 | 10 | 5                          | 8   | 14  | 21  | 20 | 17 | 15 | 12 | 7                          | 10  | 17  | 24  | 24 | 21 | 18 | 15 |
| 1000        | 4                          | 5   | 10  | 18  | 17 | 13 | 11 | 10 | 5                          | 8   | 14  | 21  | 20 | 17 | 15 | 12 | 7                          | 10  | 17  | 24  | 24 | 21 | 18 | 15 |
| 1120        | 4                          | 5   | 10  | 18  | 17 | 13 | 11 | 10 | 5                          | 8   | 14  | 21  | 20 | 17 | 15 | 12 | 7                          | 10  | 17  | 24  | 24 | 21 | 18 | 15 |
| 1250        | 4                          | 5   | 10  | 18  | 17 | 13 | 11 | 10 | 5                          | 8   | 14  | 21  | 20 | 17 | 15 | 12 | 7                          | 10  | 17  | 24  | 24 | 21 | 18 | 15 |
| 1400        | 5                          | 6   | 11  | 17  | 16 | 11 | 9  | 8  | 6                          | 9   | 15  | 20  | 20 | 16 | 12 | 10 | 8                          | 12  | 19  | 23  | 24 | 21 | 14 | 13 |
| 1600        | 5                          | 6   | 11  | 17  | 16 | 11 | 9  | 8  | 6                          | 9   | 15  | 20  | 20 | 16 | 12 | 10 | 8                          | 12  | 19  | 23  | 24 | 21 | 14 | 13 |
| 1800        | 5                          | 6   | 11  | 17  | 16 | 11 | 9  | 8  | -                          | -   | -   | -   | -  | -  | -  | -  | 8                          | 12  | 19  | 23  | 24 | 21 | 14 | 13 |
| 2000        | 5                          | 6   | 11  | 17  | 16 | 11 | 9  | 8  | -                          | -   | -   | -   | -  | -  | -  | -  | 8                          | 12  | 19  | 23  | 24 | 21 | 14 | 13 |



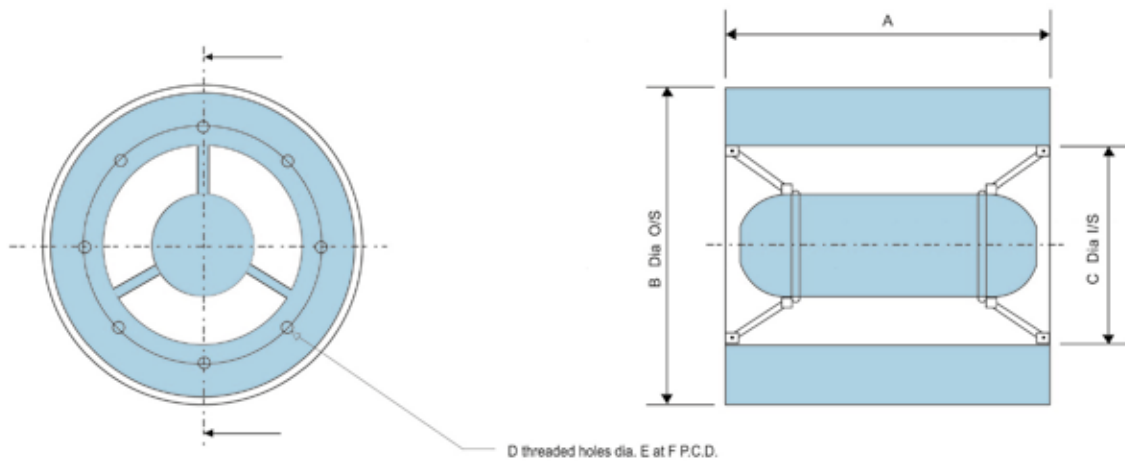




### SILAX & SILAX-P CIRCULAR ATTENUATORS



### DIMENSIONS & MASSES



| FAN Dia. mm | A 1D mm | A 1.5D mm | A 2D mm | B mm | C mm | D mm | E mm | F mm | Silax 1D kg | Silax 1.5D kg | Silax 2D kg | Silax-P 1D kg | Silax-P 1.5D kg | Silax-P 2D kg |
|-------------|---------|-----------|---------|------|------|------|------|------|-------------|---------------|-------------|---------------|-----------------|---------------|
| 315         | 315     | 475       | 630     | 467  | 315  | 8    | 8    | 355  | 10          | 13            | 20          | 13            | 19              | 26            |
| 400         | 400     | 600       | 800     | 552  | 400  | 8    | 10   | 450  | 14          | 20            | 28          | 19            | 27              | 38            |
| 500         | 500     | 750       | 1000    | 692  | 500  | 12   | 10   | 560  | 23          | 31            | 46          | 31            | 43              | 62            |
| 560         | 560     | 840       | 1120    | 752  | 560  | 12   | 10   | 620  | 27          | 38            | 54          | 38            | 54              | 76            |
| 630         | 630     | 945       | 1260    | 822  | 630  | 12   | 10   | 690  | 32          | 36            | 64          | 44            | 54              | 88            |
| 710         | 710     | 1065      | 1420    | 902  | 710  | 16   | 10   | 770  | 44          | 62            | 88          | 58            | 84              | 116           |
| 800         | 800     | 1200      | 1600    | 992  | 800  | 16   | 10   | 860  | 54          | 76            | 108         | 73            | 107             | 146           |
| 900         | 900     | 1350      | 1800    | 1092 | 900  | 16   | 12   | 970  | 68          | 97            | 136         | 91            | 119             | 182           |
| 1000        | 1000    | 1500      | 2000    | 1192 | 1000 | 16   | 12   | 1070 | 83          | 119           | 166         | 114           | 167             | 228           |
| 1120        | 1120    | 1680      | 2240    | 1312 | 1120 | 20   | 12   | 1190 | 140         | 189           | 280         | 183           | 255             | 366           |
| 1250        | 1250    | 1875      | 2500    | 1442 | 1250 | 20   | 12   | 1320 | 162         | 226           | 324         | 211           | 301             | 422           |
| 1400        | 1400    | 2100      | 2800    | 1592 | 1400 | 20   | 12   | 1470 | 222         | 313           | 444         | 290           | 418             | 580           |
| 1600        | 1600    | 2400      | 3200    | 1840 | 1600 | 24   | 16   | 1680 | 322         | 446           | 644         | 401           | 579             | 802           |
| 1800        | 1800    | -         | -       | 2043 | 1800 | 24   | 16   | 1880 | 390         | -             | -           | 481           | -               | -             |
| 2000        | 2000    | -         | -       | 2243 | 2000 | 24   | 16   | 2080 | 470         | -             | -           | 598           | -               | -             |





### AL1 & AL2 Acoustic Louvres

- Providing an ideal acoustic / weather barrier
- Unique louver blade shape results in lower pressure drop Models can be used as single or dual unit depending on sound reduction requirements
- Acoustic performance in accordance to BS-2750, reverberant room to reverberant room test method
- AL1 units installed back to back form AL2
- Manufactured from pre-galvanised sheet

### CONSTRUCTION

The Standard acoustic louvers are manufactured from pre-galvanised sheet. The unit consists of an outer frame 300mm deep for the AL louver. Blades are manufactured to a hollow aerofoil section design, to offer a reduced pressure drop across the units, and are filled with sound absorbing acoustic material.

The Single units can be manufactured up to 2400mmW by 2400mmH, for larger openings the units can be supplied as multi-section.

The AL2 acoustic louvers is made up of two standard AL acoustic louvers fixed back to back.

#### Applications

The acoustic louvers provide an ideal acoustic / weather barrier wherever ventilation apertures are created in a structure. Applications are numerous and some of the more common are listed below:

- Airconditioning plants
- Process plants
- Standby diesel generator sets
- Closed cars parks
- Refrigeration machinery
- Cooling towers

#### Acoustic Performance

The sound reduction index of the acoustic louver is obtained using a substitution technique designed to simulate typical site mounting conditions.

Acoustic Louvres are available in either AL1 or AL2 configurations. Their acoustic performance is as detailed below and is presented as a sound reduction index which can be designed as being a function of the acoustic louver.

|     | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K | Hz |
|-----|----|-----|-----|-----|----|----|----|----|----|
| AL1 | 5  | 5   | 7   | 12  | 18 | 21 | 16 | 16 | dB |
| AL2 | 8  | 9   | 12  | 21  | 32 | 34 | 32 | 32 | dB |

#### Ordering Key:

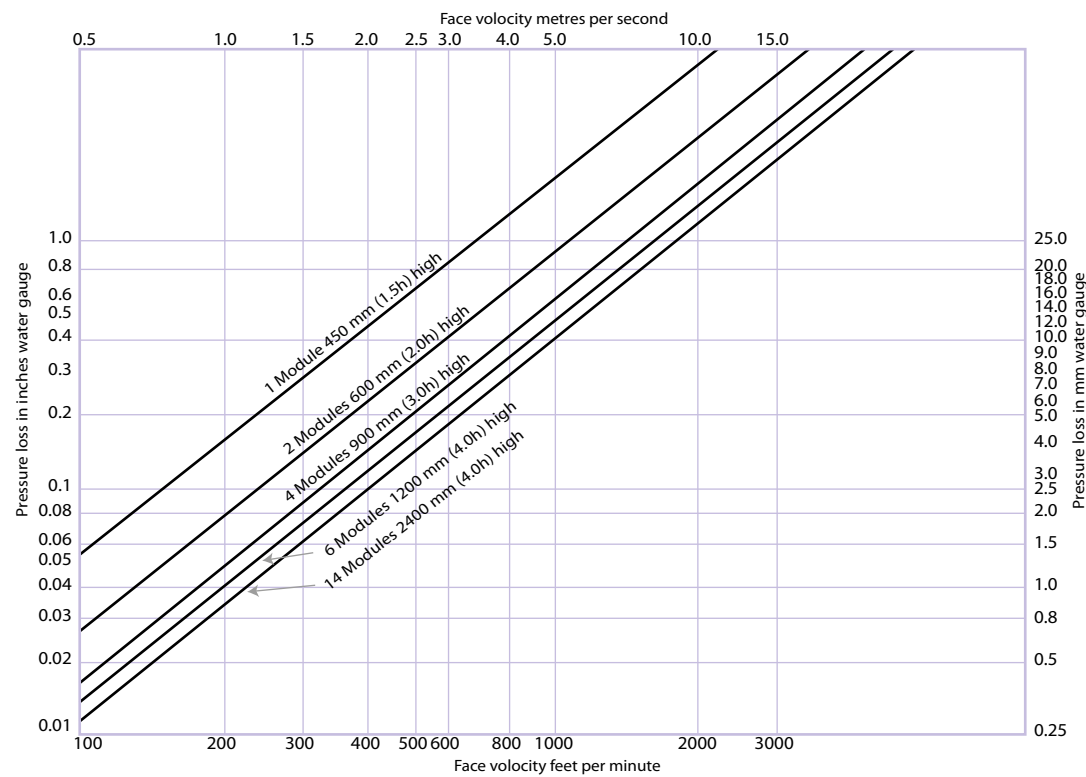
| A                                                 | L | I | W | X | H |
|---------------------------------------------------|---|---|---|---|---|
| ACOUSTIC LOUVER                                   |   |   |   |   |   |
| 1: SINGLE SET OF LOUVER BLADES                    |   |   |   |   |   |
| 2: DOUBLE SET OF LOUVER BLADES FIXED BACK TO BACK |   |   |   |   |   |
| SIZE: WIDTH X HEIGHT                              |   |   |   |   |   |



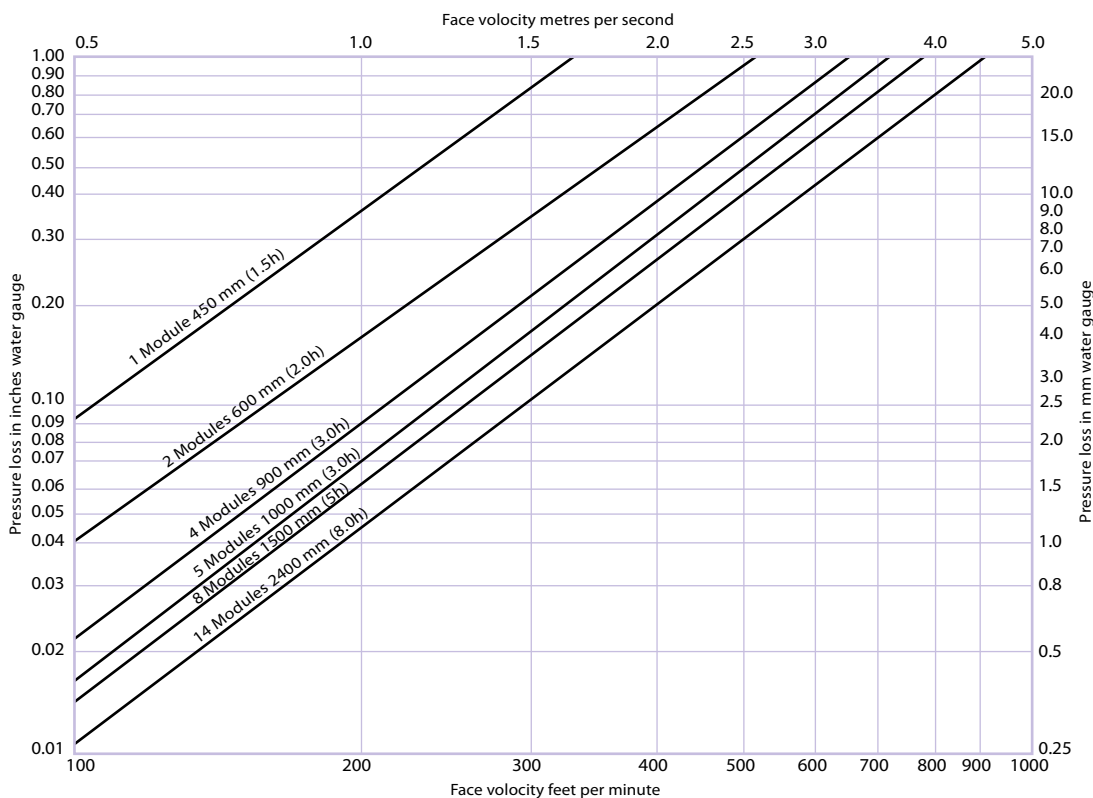


PRESSURE LOSS CHART

AL1 & AL1A Louvres (Ducted from Atmosphere)

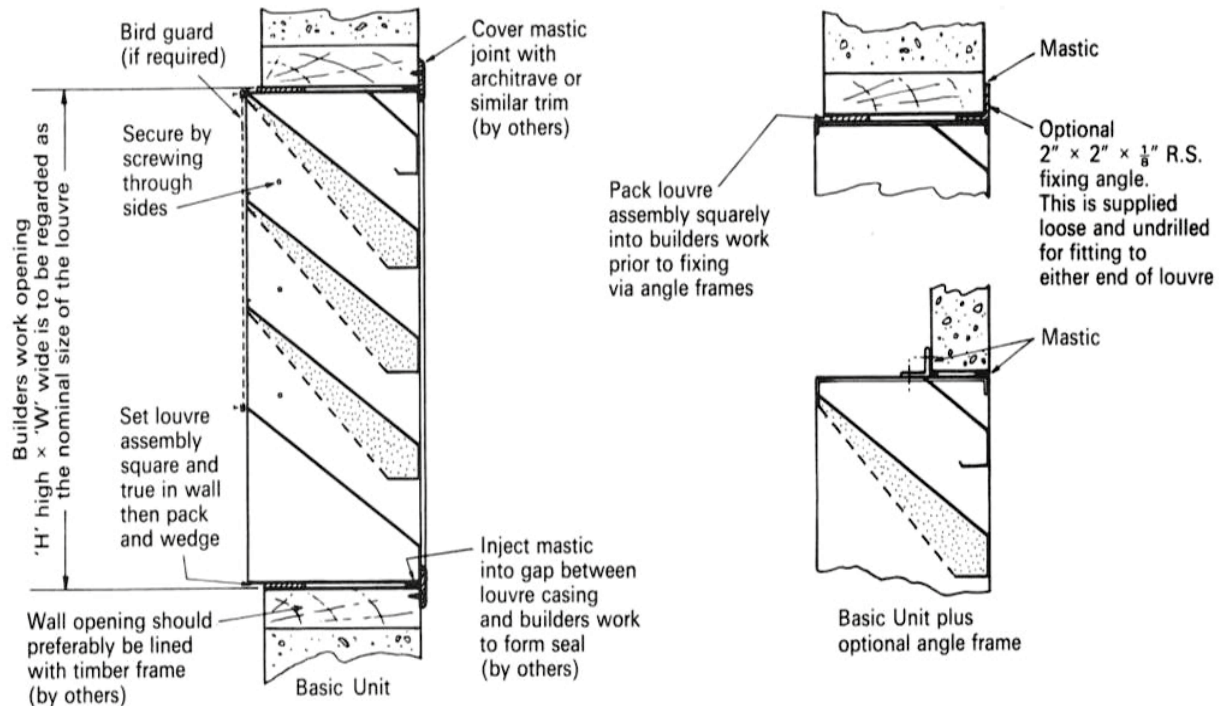
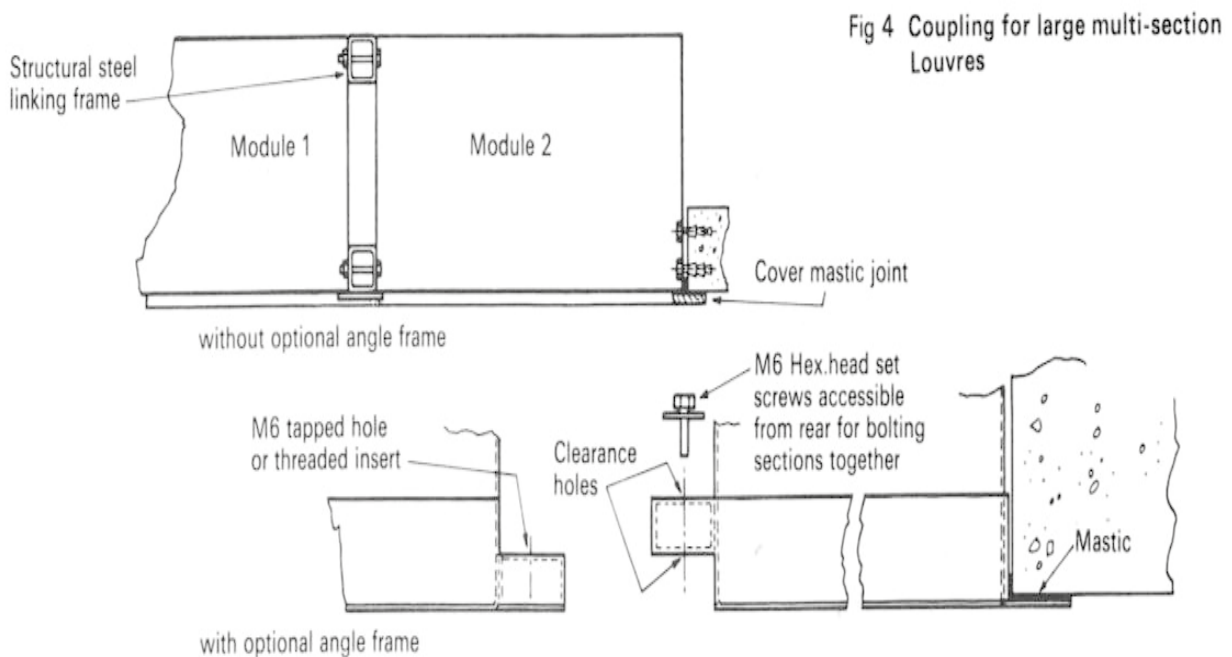


AL2 & AL2A Louvres (Ducted from Atmosphere)



**Installation details**

The nominal size of the louvre H x W refers to the builders work aperture, but it should be noted that on types AL1 and AL2 the actual unit size is W-15mm and H-15mm.

**Suggested method of Installation****Multi-Section Louvres**

Acoustic Louvres weights – AL1 Single section louvers





NOTES

Area with horizontal dashed lines for notes.









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