



## Technical Submittal Form

Formally issue information for review

|                                                             |                               |                              |                                |                |            |
|-------------------------------------------------------------|-------------------------------|------------------------------|--------------------------------|----------------|------------|
| Project Name:                                               | <i>Manchester Tribe Hotel</i> | TS No:                       | M-021                          | Date of Issue: | 02/02/2023 |
| Issued By:                                                  | <u>Philip Lennon</u>          |                              |                                |                |            |
| Works Package:                                              | <i>Mechanical</i>             | Sub-Contractor Name:         | <i>McAleer &amp; McGarrity</i> |                |            |
| Description:<br>Attenuators as per below schedule and info. |                               |                              |                                |                |            |
| Issued To:                                                  |                               | Doc's <i>MY Construction</i> |                                |                |            |

Consultant / Clients Comments:

|                                                  |                               |
|--------------------------------------------------|-------------------------------|
|                                                  |                               |
| Issued By:                                       | Date Issued:                  |
| Please Carry Out: (Circle appropriate A, B or C) |                               |
| <b>A</b>                                         | No adverse comments proceed   |
| <b>B</b>                                         | Proceed in line with comments |
| <b>C</b>                                         | Rejected                      |

Consultants Signature

|       |      |            |      |
|-------|------|------------|------|
| From: | Name | Signature: | Date |
|       |      |            |      |

| Item | System Reference          | Code | Suffix | DWG  | L1   | L2/ID | W    | H/Dia | Vol               | PD | Wt  | No.  |    | Performance, dB |     |     |     |    |    |    |    |
|------|---------------------------|------|--------|------|------|-------|------|-------|-------------------|----|-----|------|----|-----------------|-----|-----|-----|----|----|----|----|
|      |                           |      |        |      | mm   | mm    | mm   | mm    | m <sup>3</sup> /s | Pa | kg  | Off. |    | 63              | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 1    | ATT-GF-01 - HRU-01 EXH    | PL   | G      | A13G | 600  | 300   |      |       | 0.3               | 5  | 10  | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 2    | ATT-GF-02 - HRU-01 FAI    | PL   | G      | A13G | 600  | 315   |      |       | 0.345             | 5  | 10  | 1    | IL | 2               | 3   | 6   | 15  | 19 | 14 | 13 | 10 |
| 3    | ATT-GF-03 - HRU-01 SUP    | SL   | GJ     | A02G | 900  |       | 400  | 300   | 0.345             | 50 | 26  | 1    | IL | 7               | 12  | 19  | 31  | 45 | 43 | 38 | 32 |
| 4    | ATT-GF-04 - HRU-01 EXT    | SL   | GJ     | A02G | 900  |       | 400  | 300   | 0.3               | 50 | 26  | 1    | IL | 7               | 12  | 19  | 31  | 45 | 43 | 38 | 32 |
| 5    | ATT-GF-05 - HRU-02 FAI    | SL   | GJ     | A02G | 600  |       | 450  | 375   | 0.545             | 50 | 25  | 1    | IL | 5               | 9   | 14  | 21  | 30 | 26 | 22 | 15 |
| 6    | ATT-GF-06 - HRU-02 EXH    | SL   | GJ     | A02G | 600  |       | 525  | 400   | 0.649             | 50 | 29  | 1    | IL | 4               | 8   | 13  | 19  | 26 | 22 | 18 | 12 |
| 7    | ATT-GF-07 - HRU-02 EXT    | SL   | GJ     | A02G | 1200 |       | 525  | 400   | 0.649             | 50 | 45  | 1    | IL | 8               | 14  | 22  | 34  | 41 | 36 | 31 | 20 |
| 8    | ATT-GF-08 - HRU-02 SUP    | SL   | GJ     | A02G | 1200 |       | 450  | 400   | 0.545             | 50 | 41  | 1    | IL | 8               | 15  | 22  | 36  | 43 | 38 | 31 | 20 |
| 9    | ATT-GF-09 - FAN-02 EXH    | PL   | G      | A13G | 600  | 250   |      |       | 0.175             | 5  | 8   | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 10   | ATT-GF-10 - HRU-05 EXH    | PL   | G      | A13G | 600  | 200   |      |       | 0.122             | 5  | 7   | 1    | IL | 1               | 2   | 6   | 16  | 23 | 19 | 17 | 12 |
| 11   | ATT-GF-11 - HRU-05 FAI    | PL   | G      | A13G | 600  | 200   |      |       | 0.08              | 5  | 7   | 1    | IL | 1               | 2   | 6   | 16  | 23 | 19 | 17 | 12 |
| 12   | ATT-GF-12 - HRU-05 SUP    | SL   | GJ     | A02G | 1200 |       | 200  | 150   | 0.08              | 50 | 16  | 1    | IL | 5               | 12  | 20  | 37  | 55 | 55 | 55 | 55 |
| 13   | ATT-GF-13 - HRU-05 EXT*   | SL   | GJ     | A02G | 1200 |       | 300  | 200   | 0.122             | 50 | 24  | 1    | IL | 7               | 17  | 29  | 44  | 55 | 55 | 55 | 54 |
| 14   | ATT-GF-14 - HRU-04 EXH    | PL   | G      | A13G | 600  | 300   |      |       | 0.282             | 5  | 10  | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 15   | ATT-GF-15 - HRU-04 FAI    | PL   | G      | A13G | 600  | 300   |      |       | 0.272             | 5  | 10  | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 16   | ATT-GF-16 - HRU-04 EXT    | SL   | GJ     | A02G | 900  |       | 325  | 300   | 0.282             | 50 | 24  | 1    | IL | 7               | 12  | 19  | 31  | 45 | 43 | 38 | 32 |
| 17   | ATT-GF-17 - HRU-04 SUP    | SL   | G      | A02G | 900  |       | 300  | 300   | 0.272             | 50 | 23  | 1    | IL | 7               | 12  | 19  | 31  | 45 | 43 | 38 | 32 |
| 18   | ATT-GF-18 - HRU-03 FAI    | PL   | G      | A13G | 600  | 250   |      |       | 0.2               | 5  | 8   | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 19   | ATT-GF-19 - HRU-03 EXH    | PL   | G      | A13G | 600  | 250   |      |       | 0.2               | 5  | 8   | 1    | IL | 1               | 2   | 6   | 15  | 20 | 15 | 14 | 10 |
| 20   | ATT-GF-20 - HRU-03 SUP    | SL   | GJ     | A02G | 1500 |       | 300  | 225   | 0.2               | 50 | 30  | 1    | IL | 7               | 18  | 30  | 46  | 55 | 55 | 55 | 54 |
| 21   | ATT-GF-21 - HRU-03 EXT    | SL   | GJ     | A02G | 1500 |       | 300  | 225   | 0.2               | 50 | 30  | 1    | IL | 7               | 18  | 30  | 46  | 55 | 55 | 55 | 54 |
| 22   | ATT-GF-22 - FAN-01 EXH    | SL   | GJ     | A02G | 600  |       | 400  | 300   | 0.37              | 50 | 21  | 1    | IL | 5               | 9   | 14  | 22  | 34 | 32 | 30 | 26 |
| 23   | ATT-GF-23 - FAN-03 EXH    | PL   | G      | A13G | 600  | 150   |      |       | 0.065             | 5  | 6   | 1    | IL | 1               | 2   | 6   | 16  | 23 | 19 | 17 | 12 |
| 24   | ATT-GF-24 - AHU-02 EXH    | SP   | G      | A02G | 900  |       | 525  | 500   | 0.932             | 50 | 47  | 1    | IL | 7               | 13  | 19  | 31  | 48 | 41 | 35 | 25 |
| 25   | ATT-GF-25 - AHU-02 FAI    | SP   | G      | A02G | 900  |       | 600  | 500   | 1.035             | 50 | 48  | 1    | IL | 7               | 13  | 19  | 31  | 48 | 41 | 35 | 25 |
| 26   | ATT-GF-26 - AHU-02 SUP    | SP   | G      | A02G | 1500 |       | 600  | 500   | 1.035             | 50 | 84  | 1    | IL | 13              | 21  | 32  | 43  | 49 | 44 | 36 | 25 |
| 27   | ATT-GF-27 - AHU-02 EXT    | SP   | G      | A02G | 1500 |       | 600  | 475   | 0.932             | 50 | 81  | 1    | IL | 13              | 21  | 32  | 43  | 49 | 44 | 36 | 25 |
| 28   | ATT-GF-28 - AHU-01 EXT    | SP   | G      | A02G | 1500 |       | 600  | 475   | 0.932             | 50 | 81  | 1    | IL | 13              | 21  | 32  | 43  | 49 | 44 | 36 | 25 |
| 29   | ATT-GF-29 - AHU-01 SUP    | SP   | G      | A02G | 1500 |       | 600  | 500   | 1.035             | 50 | 84  | 1    | IL | 13              | 21  | 32  | 43  | 49 | 44 | 36 | 25 |
| 30   | ATT-GF-30 - AHU-01 FAI    | SP   | G      | A02G | 900  |       | 600  | 500   | 1.035             | 50 | 48  | 1    | IL | 7               | 13  | 19  | 31  | 48 | 41 | 35 | 25 |
| 31   | ATT-GF-31 - AHU-01 EXH    | SP   | G      | A02G | 900  |       | 525  | 500   | 0.932             | 50 | 47  | 1    | IL | 7               | 13  | 19  | 31  | 48 | 41 | 35 | 25 |
| 32   | ATT-RF-01 - AHU-08-02 EXH | SP   | G      | A02G | 1200 |       | 1100 | 1075  | 5.14              | 50 | 168 | 1    | IL | 9               | 15  | 23  | 33  | 41 | 29 | 25 | 18 |
| 33   | ATT-RF-02 - AHU-08-02 FAI | SP   | G      | A02G | 1200 |       | 1150 | 1100  | 5.35              | 50 | 172 | 1    | IL | 10              | 17  | 25  | 34  | 43 | 33 | 27 | 19 |
| 34   | ATT-RF-03 - AHU-08-02 EXT | SP   | G      | A02G | 1200 |       | 625  | 575   | 1.368             | 50 | 76  | 1    | IL | 10              | 17  | 25  | 34  | 43 | 33 | 27 | 19 |
| 35   | ATT-RF-04 - AHU-08-02 SUP | SP   | G      | A02G | 1200 |       | 625  | 500   | 1.12              | 50 | 70  | 1    | IL | 10              | 17  | 25  | 34  | 43 | 33 | 27 | 19 |
| 36   | ATT-RF-05 - AHU-08-02 EXT | SP   | G      | A02G | 1500 |       | 1000 | 925   | 3.778             | 50 | 151 | 1    | IL | 9               | 15  | 29  | 40  | 55 | 48 | 42 | 25 |

| Item | System Reference          | Code | Suffix | DWG  | L1   | L2/ID | W    | H/Dia | Vol    | PD | Wt  | No. |    | Performance, dB |    |    |    |    |    |    |    |
|------|---------------------------|------|--------|------|------|-------|------|-------|--------|----|-----|-----|----|-----------------|----|----|----|----|----|----|----|
| 37   | ATT-RF-06 - AHU-08-02 SUP | SP   | G      | A02G | 1500 |       | 1025 | 1000  | 4.23   | 50 | 160 | 1   | IL | 9               | 16 | 29 | 42 | 55 | 49 | 45 | 29 |
| 38   | ATT-RF-07 - AHU-08-01 EXT | SP   | G      | A02G | 1500 |       | 1000 | 900   | 3.61   | 50 | 147 | 1   | IL | 9               | 15 | 29 | 40 | 55 | 48 | 42 | 25 |
| 39   | ATT-RF-08 - AHU-08-01 SUP | SP   | G      | A02G | 1500 |       | 1025 | 1000  | 4.26   | 50 | 160 | 1   | IL | 9               | 16 | 29 | 42 | 55 | 49 | 45 | 29 |
| 40   | ATT-RF-09 - AHU-08-01 EXH | SP   | G      | A02G | 1200 |       | 1000 | 900   | 3.61   | 50 | 116 | 1   | IL | 8               | 14 | 23 | 33 | 38 | 26 | 22 | 18 |
| 41   | ATT-RF-10 - AHU-08-01 FAI | SP   | G      | A02G | 1200 |       | 1000 | 1000  | 4.26   | 50 | 123 | 1   | IL | 8               | 14 | 23 | 33 | 38 | 26 | 22 | 18 |
| 42   | ATT-RF-11 - AHU-RF-01 EXH | SP   | GZ121  | A02G | 1500 |       | 2800 | 1100  | 10.194 | 50 | 430 | 1   | IL | 12              | 20 | 30 | 43 | 47 | 40 | 33 | 24 |
| 43   | ATT-RF-12 - AHU-RF-01 EXT | SP   | GZ211  | A02G | 1800 |       | 1750 | 1425  | 10.194 | 50 | 426 | 1   | IL | 13              | 23 | 35 | 46 | 50 | 44 | 37 | 25 |
| 44   | ATT-RF-13 - AHU-RF-02 FAI | SP   | GZ121  | A02G | 1500 |       | 2800 | 1100  | 10.194 | 50 | 430 | 1   | IL | 12              | 20 | 30 | 43 | 47 | 40 | 33 | 24 |
| 45   | ATT-RF-14 - AHU-RF-02 SUP | SP   | GZ211  | A02G | 1800 |       | 1675 | 1500  | 10.194 | 50 | 424 | 1   | IL | 10              | 18 | 32 | 49 | 55 | 55 | 49 | 33 |
| 46   |                           |      |        |      |      |       |      |       |        |    |     |     |    |                 |    |    |    |    |    |    |    |

#### NOTES

LABEL WITH ITEM NO. & SYSTEM REF.

IL = INSERTION LOSS (dB)

G - SELF FINISH PRE-GALVANISED STEEL CONSTRUCTION.

J - SPLITTERS ARRANGED HORIZONTALLY.

Z - ATTENUATOR SUPPLIED IN MODULAR SECTIONS INDICATED. REFER TO DATA SHEET A09H & A20H.

THE ATTENUATORS OFFERED HAVE BEEN BASED ON THE DETAILS SHOWN ON THE QODA SCHEDULE REF. 20250 ACCORE TRIBE

\*SPECIFIED DIMENSIONS HAVE BEEN AMENDED TO SUIT THE PROVIDED PERFORMANCE REQUIREMENTS.

SPECIFIED LENGTHS HAVE BEEN AMENDED, WHERE NECESSARY, TO OUR NEAREST STANDARD SIZES / TO SUIT REQUIRED PERFORMANCES.

REFER TO DATA SHEETS A02G, A13G, A09H & A20H FOR CONSTRUCTIONAL DETAILS.

DATA SHEET A20H (1 of 3)

RECTANGULAR ATTENUATOR

MODULAR CONSTRUCTION - “Z” SUFFIX

ASSEMBLY DETAILS

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NOTE

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DIMENSIONS GIVEN ON THE EQUIPMENT SCHEDULE ARE THE OVERALL ATTENUATOR BODY LENGTH (L), WIDTH (W) AND HEIGHT (H) AND EXCLUDE FLANGES.

MANUFACTURING AND ASSEMBLY DIMENSIONAL TOLERANCE < 1.0%

ASSEMBLY AND INSTALLATION BY OTHERS.

ATTENUATORS MUST BE ASSEMBLED IN SITU AND ADEQUATELY SUPPORTED.

ASSEMBLY

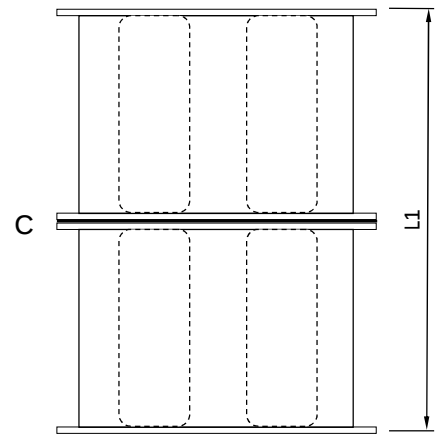
PRE-DRILLED TOP HAT SECTIONS (A) ARE PROVIDED TO CORRECTLY SPACE ADJACENT MODULES. THESE ARE SUPPLIED CUT TO LENGTH. FIX TO THE MODULE BODY WITH THE SELF-DRILLING SCREWS SUPPLIED.

WIDER MODULES HAVE INTERMEDIATE TOP HAT SECTIONS (A\*) TO SUPPORT THE MODULES ABOVE.

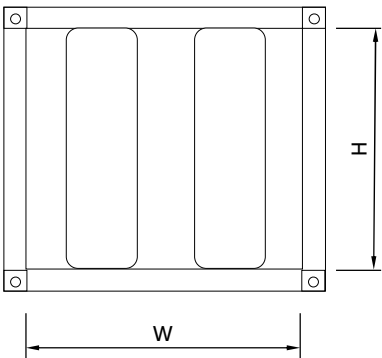
PRE-DRILLED FLAT PLATES (B) ARE PROVIDED TO CLOSE THE FLANGE JOINTS. THESE ARE SUPPLIED IN STANDARD LENGTHS AND MUST BE CUT ON SITE BY INSTALLER. FIX TO THE FLANGE FACE AT BOTH ENDS OF THE ATTENUATOR WITH THE SELF-DRILLING SCREWS SUPPLIED. THE JOINT MUST BE MADE AIR-TIGHT (SEALANT BY INSTALLER).

FLANGES (C) ARE TO BE BOLTED AND SEALED (FIXINGS AND SEALANT BY INSTALLER).

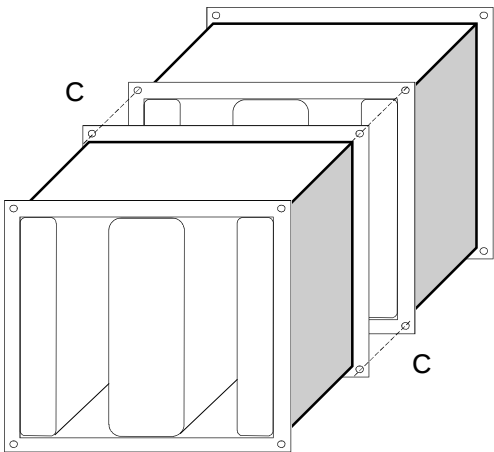
WHEN THERE ARE ADDITIONAL MODULES TO THOSE SHOWN, SIMPLY REPEAT ASSEMBLY SEQUENCE.



PLAN VIEW

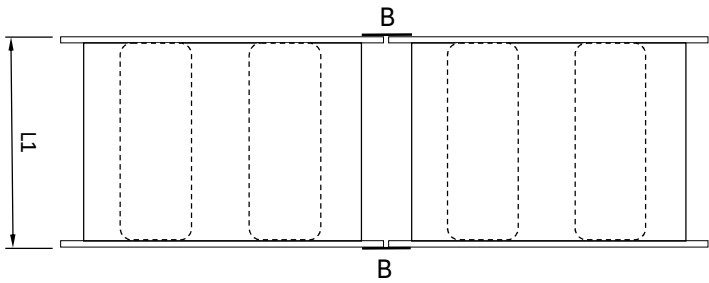


END VIEW

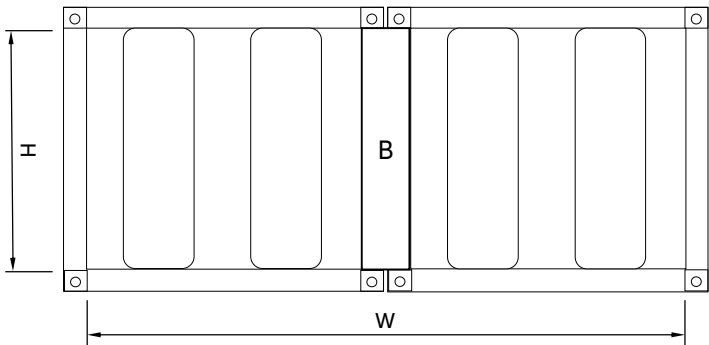


EXPLODED ISOMETRIC VIEW

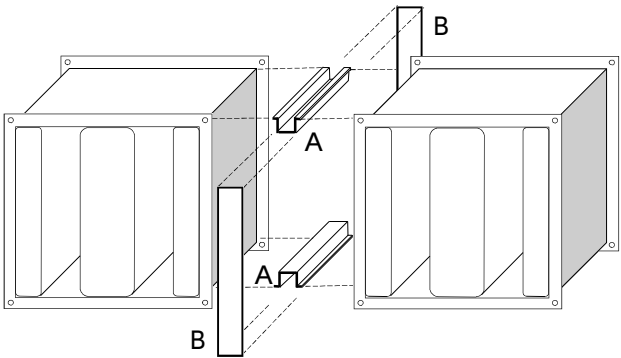
MODULAR  
ATTENUATOR SPLIT IN  
SECTIONS ON LENGTH



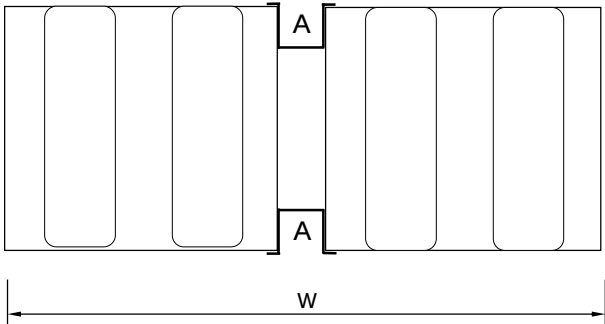
PLAN VIEW



END VIEW

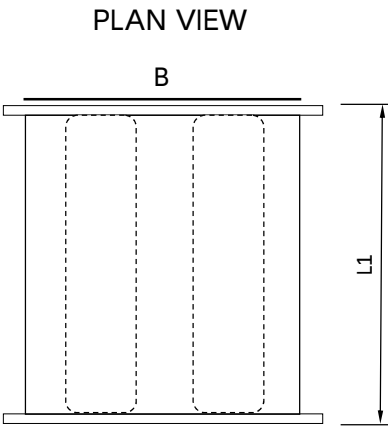


EXPLODED ISOMETRIC VIEW

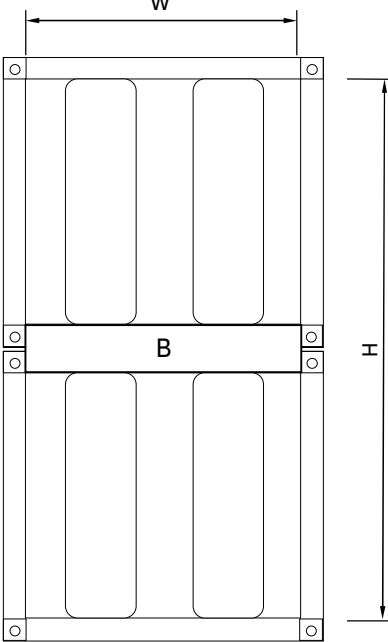


SECTIONAL END VIEW

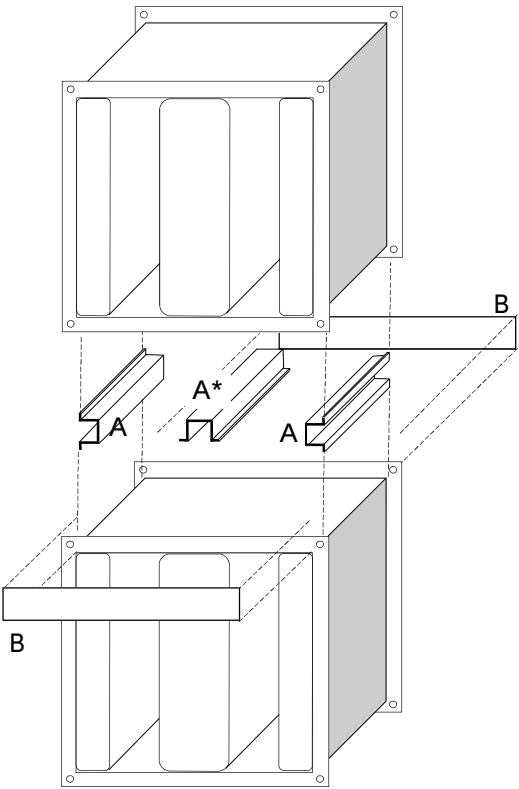
MODULAR ATTENUATOR SPLIT IN SECTIONS ON WIDTH



PLAN VIEW

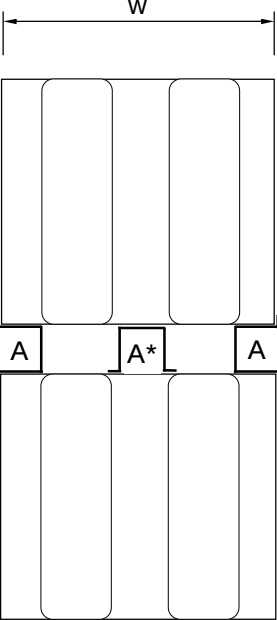


END VIEW



EXPLODED ISOMETRIC VIEW

NOTE: WIDE MODULES HAVE ONE OR MORE INTERMEDIATE TOP HAT SPACERS (A\*).



SECTIONAL END VIEW

MODULAR ATTENUATOR SPLIT IN SECTIONS ON HEIGHT

DATA SHEET A20H (2 of 3)

RECTANGULAR ATTENUATOR

MODULAR CONSTRUCTION - “Z” SUFFIX

SPLIT ON WIDTH AND HEIGHT

ASSEMBLY DETAILS

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NOTE

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DIMENSIONS GIVEN ON THE EQUIPMENT SCHEDULE ARE THE OVERALL ATTENUATOR BODY LENGTH (L), WIDTH (W) AND HEIGHT (H) AND EXCLUDE FLANGES.

MANUFACTURING AND ASSEMBLY DIMENSIONAL TOLERANCE < 1.0%

ASSEMBLY AND INSTALLATION BY OTHERS.

ATTENUATORS MUST BE ASSEMBLED IN SITU AND ADEQUATELY SUPPORTED.

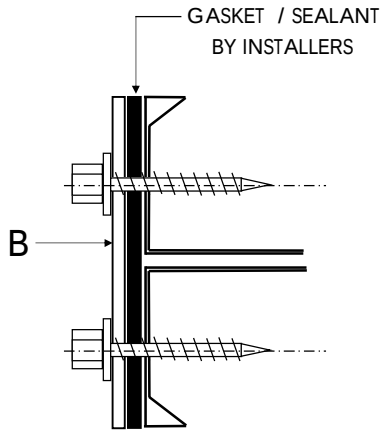
ASSEMBLY

PRE-DRILLED TOP HAT SECTIONS (A) ARE PROVIDED TO CORRECTLY SPACE ADJACENT MODULES. THESE ARE SUPPLIED CUT TO LENGTH. FIX TO THE MODULE BODY WITH THE SELF-DRILLING SCREWS SUPPLIED.

WIDER MODULES HAVE INTERMEDIATE TOP HAT SECTIONS (A\*) TO SUPPORT THE MODULES ABOVE.

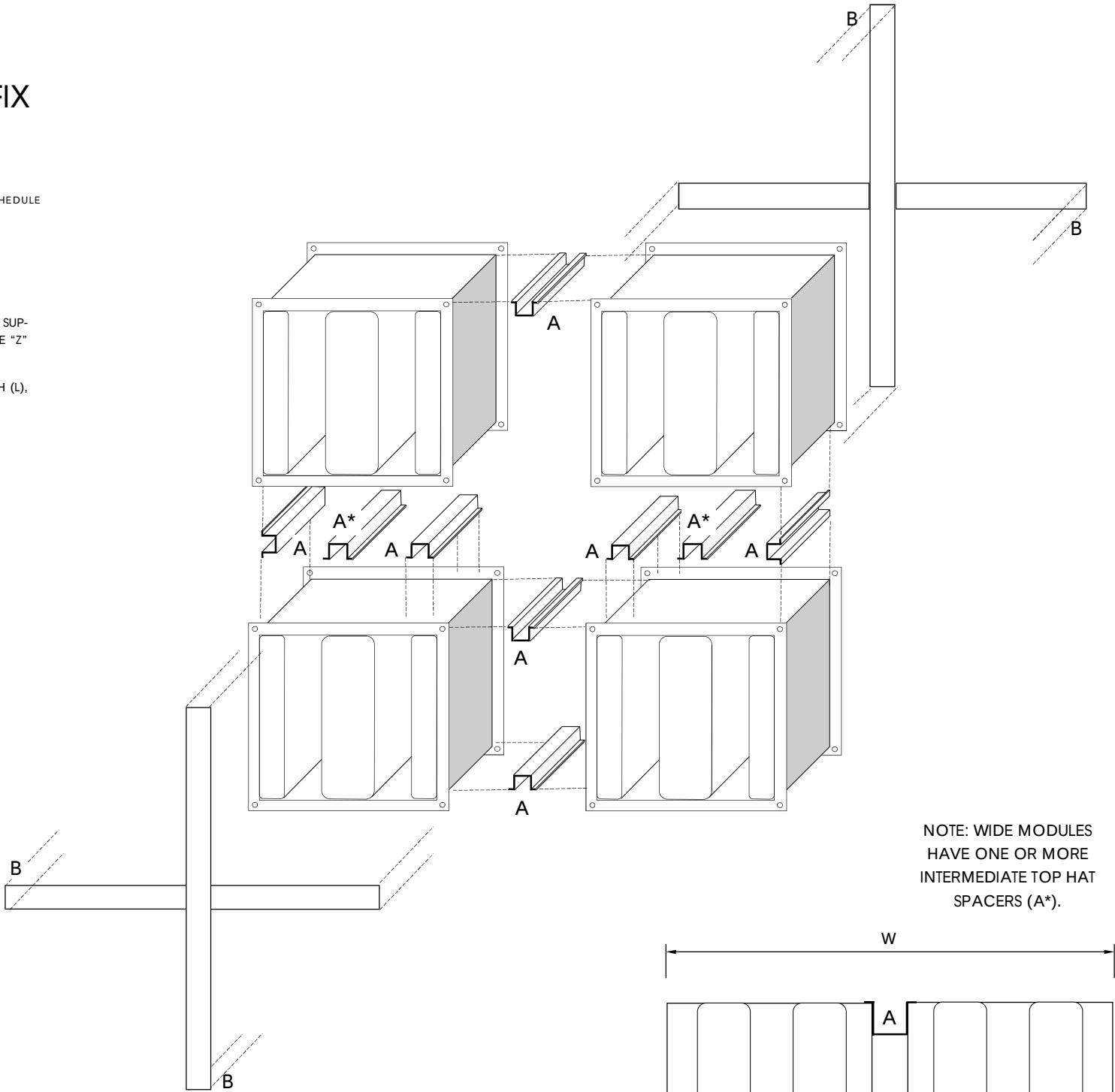
PRE-DRILLED FLAT PLATES (B) ARE PROVIDED TO CLOSE THE FLANGE JOINTS. THESE ARE SUPPLIED IN STANDARD LENGTHS AND MUST BE CUT ON SITE BY INSTALLER. FIX TO THE FLANGE FACE AT BOTH ENDS OF THE ATTENUATOR WITH THE SELF-DRILLING SCREWS SUPPLIED. THE JOINT MUST BE MADE AIR-TIGHT (SEALANT BY INSTALLER).

WHEN THERE ARE ADDITIONAL MODULES TO THOSE SHOWN. SIMPLY REPEAT ASSEMBLY SEQUENCE.



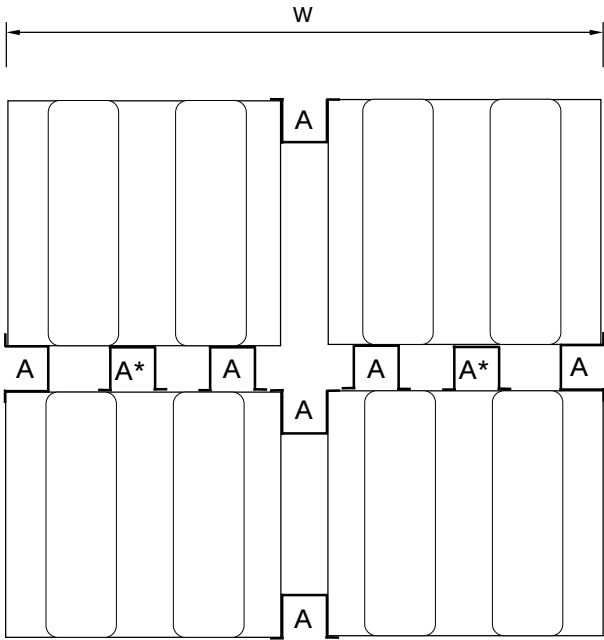
SECTION THROUGH FLANGE  
CLOSING PLATE (B)

INSTALLERS MUST ENSURE AIRTIGHT  
SEAL BETWEEN PLATE AND FLANGES

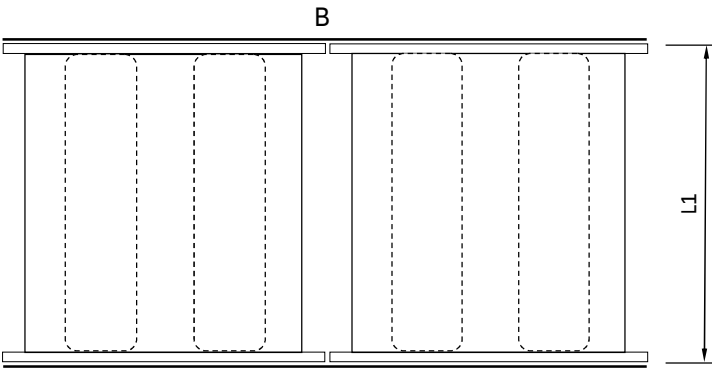


EXPLODED ISOMETRIC VIEW

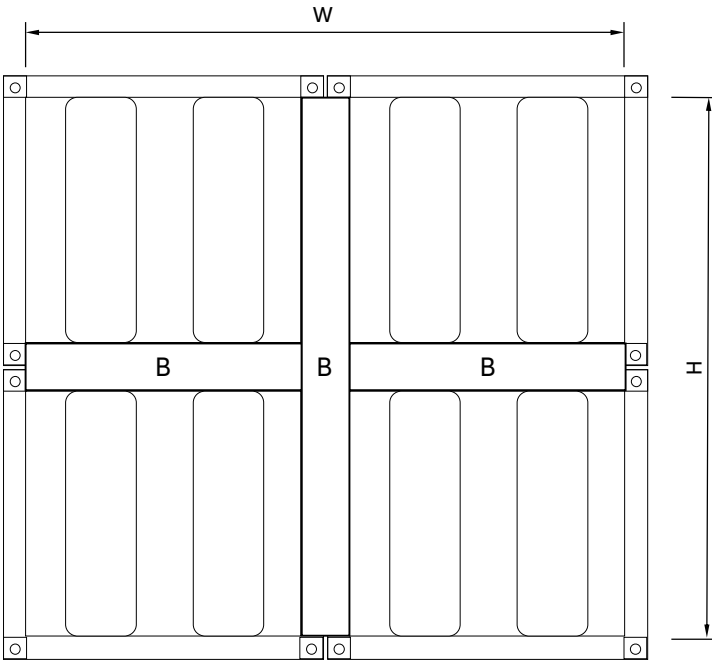
NOTE: WIDE MODULES  
HAVE ONE OR MORE  
INTERMEDIATE TOP HAT  
SPACERS (A\*).



SECTIONAL END VIEW



PLAN VIEW



END VIEW

DATA SHEET A20H (3 of 3)

RECTANGULAR ATTENUATOR

MODULAR CONSTRUCTION - “Z” SUFFIX

SPLIT ON LENGTH, WIDTH AND HEIGHT

ASSEMBLY DETAILS

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NOTE

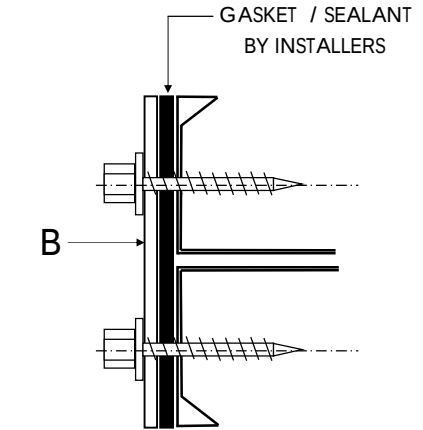
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MANUFACTURING AND ASSEMBLY DIMENSIONAL TOLERANCE < 1.0%

ASSEMBLY AND INSTALLATION BY OTHERS.

ATTENUATORS MUST BE ASSEMBLED IN SITU AND ADEQUATELY SUPPORTED.



SECTION THROUGH FLANGE CLOSING PLATE (B)

INSTALLERS MUST ENSURE AIRTIGHT SEAL BETWEEN PLATE AND FLANGES

ASSEMBLY

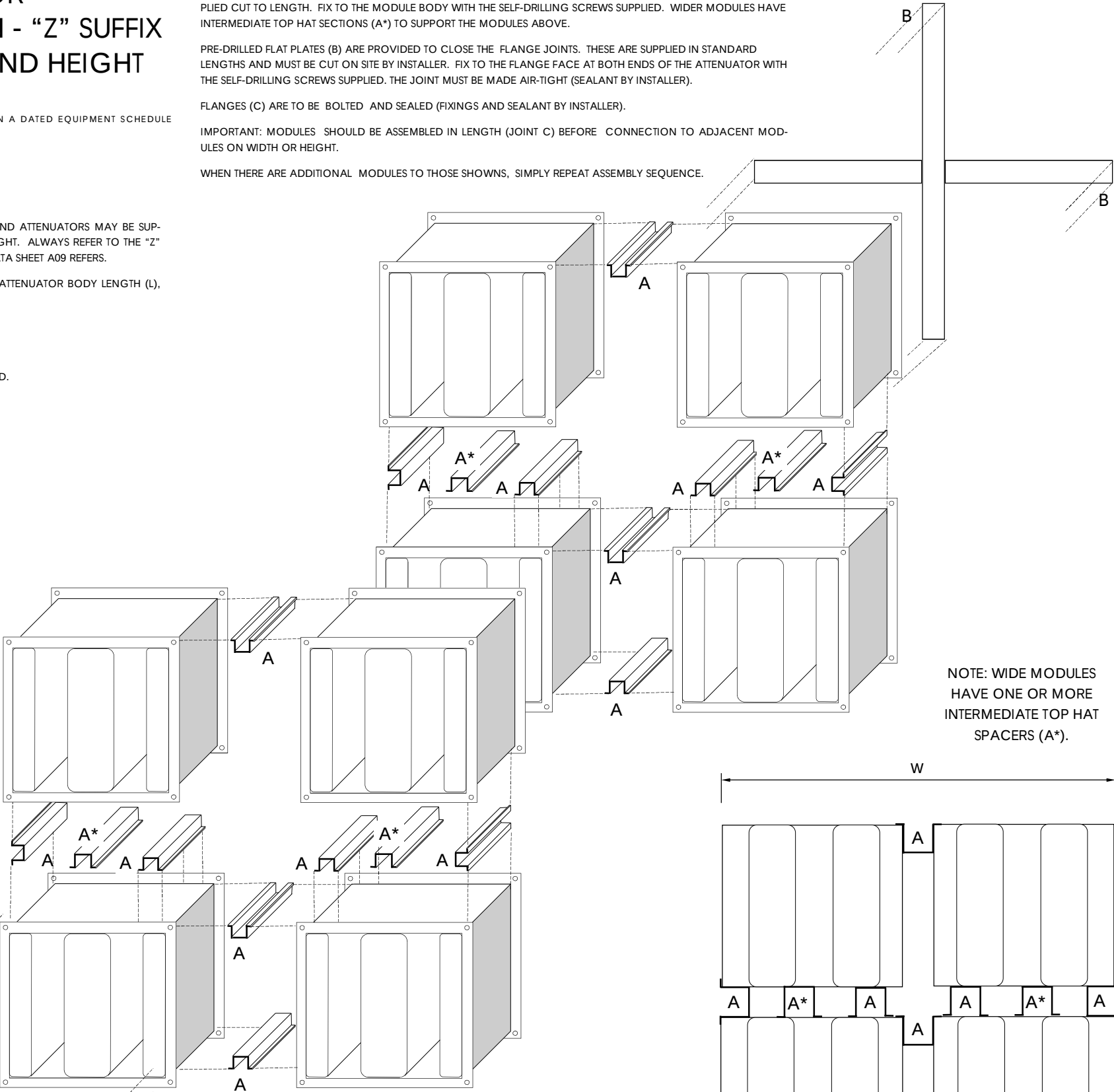
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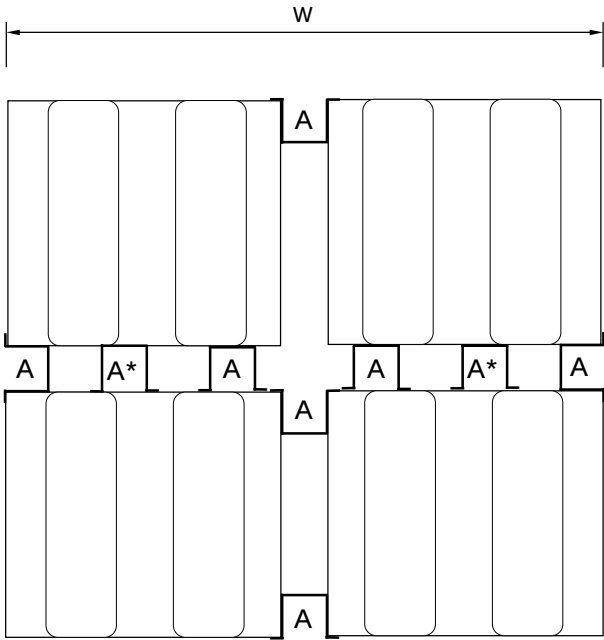
FLANGES (C) ARE TO BE BOLTED AND SEALED (FIXINGS AND SEALANT BY INSTALLER).

IMPORTANT: MODULES SHOULD BE ASSEMBLED IN LENGTH (JOINT C) BEFORE CONNECTION TO ADJACENT MODULES ON WIDTH OR HEIGHT.

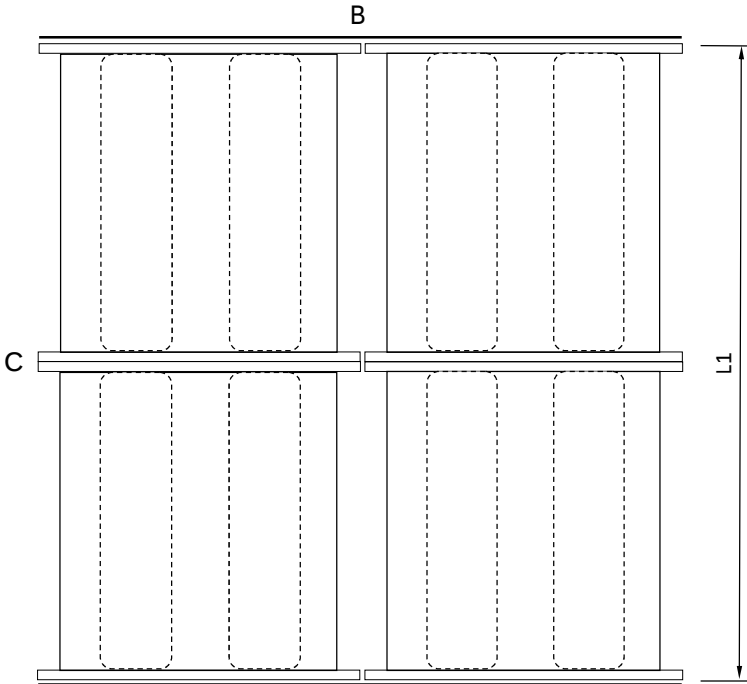
WHEN THERE ARE ADDITIONAL MODULES TO THOSE SHOWN, SIMPLY REPEAT ASSEMBLY SEQUENCE.



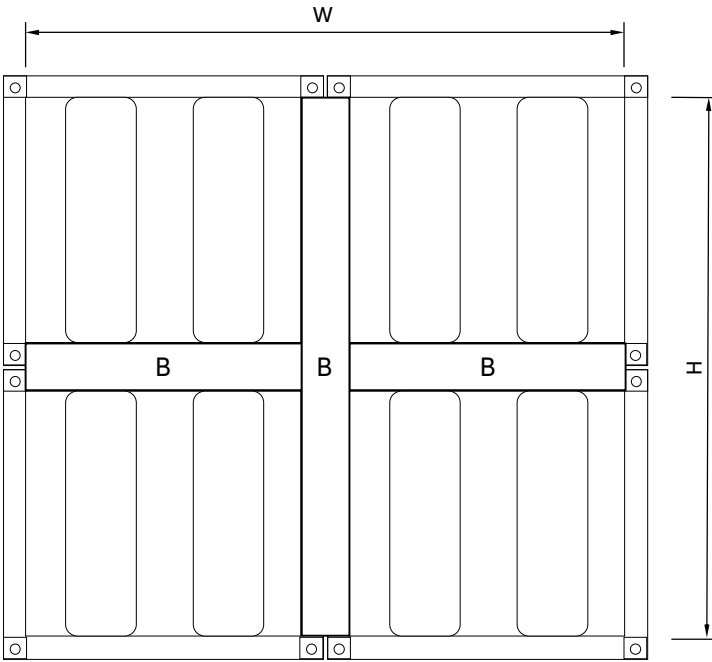
EXPLODED ISOMETRIC VIEW



SECTIONAL END VIEW



PLAN VIEW



END VIEW

# DATA SHEET A13G

## CIRCULAR ATTENUATOR

### SPIGOT CONNECTION

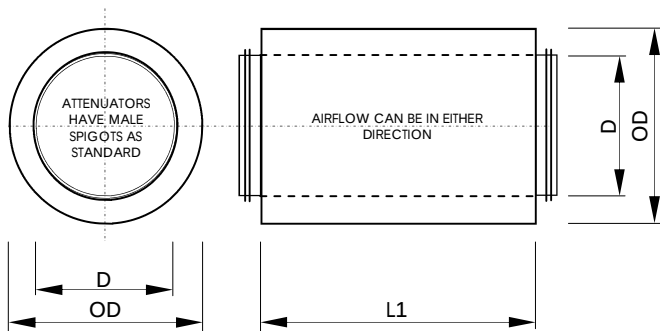
### MODEL PL (WITHOUT POD)

### MODEL PLP (WITH POD)



THIS IS NOT A STAND ALONE DOCUMENT AND UNLESS REFERRED TO IN A DATED EQUIPMENT SCHEDULE IS SUBJECT TO REVISION WITHOUT NOTICE.

## DIMENSIONS



NOMINAL DIAMETER (D)

BETWEEN 100 - 500 mm  
ABOVE 500 mm

MAX OUTSIDE DIAMETER (OD)

D + 110 mm.  
D + 170 mm.

LENGTH (L1) IS NOMINAL CASING DIMENSION, EXCLUDING SPIGOTS.

## SPECIFICATION

ATTENUATORS ARE CONSTRUCTED IN ACCORDANCE WITH DW 144 SPECIFICATION FOR MEDIUM PRESSURE (CLASS B) DUCTWORK.

CASES ARE STIFFENED AND FITTED WITH MALE SPIGOTS WITH INTEGRAL SEALS.

SOUND ABSORBENT INFILL IS ENCAPSULATED WITH GLASS CLOTH AND PERFORATED STEEL.

CENTRAL PODS (TYPE PLP) HAVE AERODYNAMIC FAIRINGS AT EACH END.

## NOTES

THIS DATA SHEET IS TO BE READ IN CONJUNCTION WITH THE EQUIPMENT SCHEDULE.

EXCESSIVELY LARGE OR HEAVY ATTENUATORS MAY BE MANUFACTURED IN MATING SECTIONS FOR EASE OF HANDLING.

ATTENUATORS WILL BE SUPPLIED WITHOUT SUPPORT STEELWORK, BRACKETS, FIXINGS, GASKET, MASTIC OR OTHER SUCH ITEMS, UNLESS OTHERWISE STATED.

IT IS THE INSTALLERS RESPONSIBILITY TO SEAL THE ATTENUATOR TO THE CONNECTING DUCT.

INSERTION LOSS, PESSION LOSS AND FLOW NOISE DATA ARE DERIVED FROM TESTS CARRIED OUT IN ACCORDANCE WITH ISO 7235 AND MAY VARY DEPENDING ON INSTALLED CONDITIONS.

MANUFACTURING DIMENSIONAL TOLERANCE < 1.0 %.

## WEIGHT

WEIGHTS ARE GIVEN ON THE EQUIPMENT SCHEDULE.

## SUFFIX

THE SUFFIX TO THE ATTENUATOR MODEL DEFINES THE MATERIAL OF FABRICATION AND ANY ADDITIONAL FEATURES OR SPECIAL CONSTRUCTIONAL DETAILS.

G - PRE-GALVANISED STEEL CONSTRUCTION.

S - GRADE 316 STAINLESS STEEL CONSTRUCTION.

H1 - HIGH TEMPERATURE APPLICATION (2 HOUR/300°C).

C - HIGH PRESSURE APPLICATION (DW 144, CLASS C).

K - PROTECTIVE PAINT FINISH TO VISIBLE INTERNAL METAL SURFACES.

M - MELINEX ENCAPSULATED INFILL.

X - SPECIAL CONSTRUCTION, REFER TO EQUIPMENT SCHEDULE FOR DETAILS.

## FLANGE DETAILS

ATTENUATORS ARE FITTED WITH MALE SPIGOTS AS STANDARD.

## STANDARD SIZES

DIAMETER(D) - 100, 125, 150, 160, 180, 200, 250, 300, 315, 355, 400, 450, 500, 560 & 630 mm.

LENGTH (L1) - 600, 900, 1200, 1500, 1800, 2100, 2400, 2700 & 3000 mm.

ALL ATTENUATORS ARE MADE TO ORDER.

NON STANDARD SIZES AVAILABLE.

# DATA SHEET A09H

## RECTANGULAR ATTENUATOR

### MODULAR CONSTRUCTION

#### “Z” SUFFIX



## MODULAR CONSTRUCTION

ATTENUATORS MANUFACTURED IN ONE SECTION WILL HAVE NO “Z” SUFFIX IN THE CODE.

WHEN THE ATTENUATOR IS SUPPLIED IN MODULAR FORM, THE ACTUAL NUMBER OF SECTIONS IN THE LENGTH, WIDTH AND HEIGHT IS DEFINED BY THE “Z” CODE AS FOLLOWS:

| Z                                                                                            | #                            | #                           | #                            |
|----------------------------------------------------------------------------------------------|------------------------------|-----------------------------|------------------------------|
| A “Z” SUFFIX IN THE ATTENUATOR CODE DENOTES THAT THE ATTENUATOR WILL BE SUPPLIED IN MODULES. | NUMBER OF MODULES IN LENGTH. | NUMBER OF MODULES IN WIDTH. | NUMBER OF MODULES IN HEIGHT. |

## NOTES

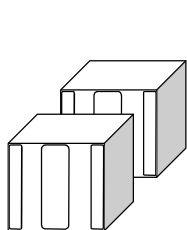
EXAMPLES SHOWN BELOW ARE FOR ILLUSTRATION PURPOSES ONLY AND ATTENUATORS MAY BE SUPPLIED IN ANY COMBINATION OF SECTIONS ON LENGTH, WIDTH OR HEIGHT. ALWAYS REFER TO THE “Z” CODE GIVEN IN THE SUFFIX COLUMN OF THE EQUIPMENT SCHEDULE.

DIMENSIONS GIVEN ON THE EQUIPMENT SCHEDULE ARE THE OVERALL ATTENUATOR BODY LENGTH (L), WIDTH (W) AND HEIGHT (H)

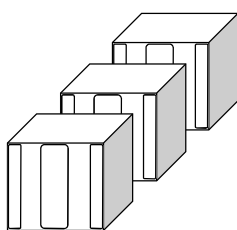
ASSEMBLY INSTRUCTIONS ARE SHOWN ON A SEPARATE DATA SHEET. ASSEMBLY BY OTHERS.

FIXINGS ARE PROVIDED TO ASSEMBLE ATTENUATOR. FIXINGS TO CONNECTING DUCT BY OTHERS.

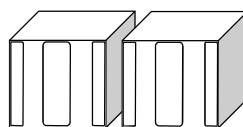
MANUFACTURING AND ASSEMBLY DIMENSIONAL TOLERANCE < 1.0%



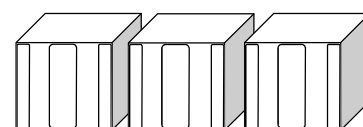
Z 211



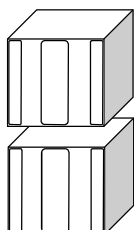
Z 311



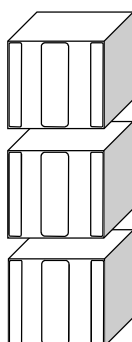
Z 121



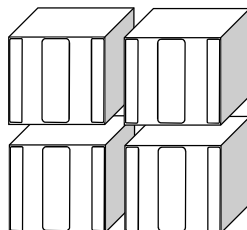
Z 131



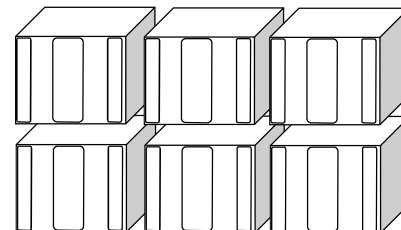
Z 112



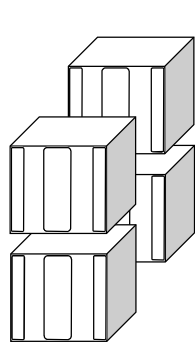
Z 113



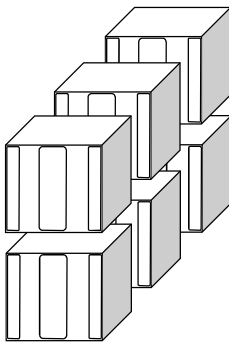
Z 122



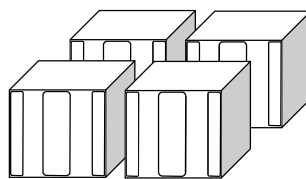
Z 132



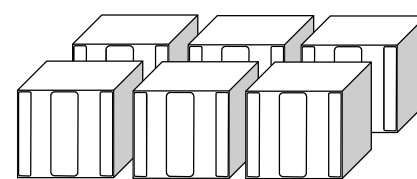
Z 212



Z 312



Z 221



Z 231

# DATA SHEET A02G

## RECTANGULAR ATTENUATOR

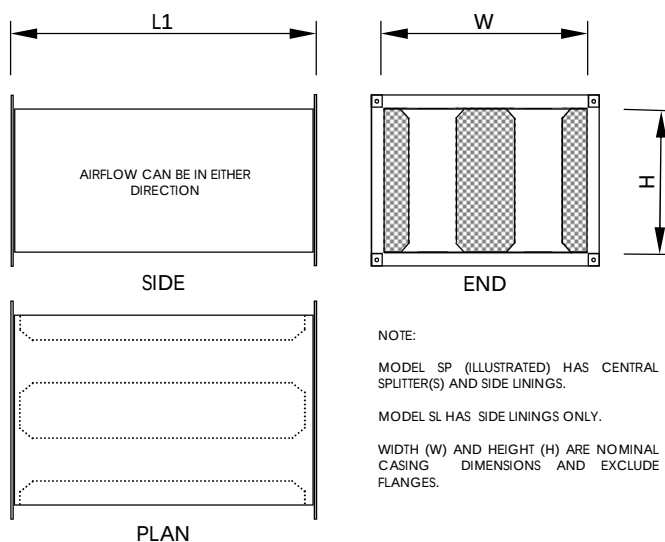
### FLANGED

### MODEL SP / MODEL SL



THIS IS NOT A STAND ALONE DOCUMENT AND UNLESS REFERRED TO IN A DATED EQUIPMENT SCHEDULE IS SUBJECT TO REVISION WITHOUT NOTICE.

## DIMENSIONS



## SPECIFICATION

ATTENUATORS ARE CONSTRUCTED IN ACCORDANCE WITH DW 144 SPECIFICATION FOR MEDIUM PRESSURE (CLASS B) DUCTWORK.

CASES ARE STIFFENED AND FITTED WITH PROPRIETARY FLANGES.

MODEL SP - HAS SOUND ABSORBENT SPLITTERS ARRANGED VERTICALLY WITHIN THE CASING TO FORM A SERIES OF CENTRAL ELEMENTS AND SIDE LININGS.

MODEL SL - HAS SOUND ABSORBENT SPLITTERS ARRANGED VERTICALLY WITHIN THE CASING TO FORM SIDE LININGS ONLY.

SPLITTERS AND SIDE LININGS CONTAIN A SOUND ABSORBENT INFILL THAT IS ENCAPSULATED WITH GLASS CLOTH AND PLAIN/PERFORATED STEEL.

SPLITTERS HAVE AERODYNAMIC FAIRINGS AT EACH END.

## NOTES

THIS DATA SHEET IS TO BE READ IN CONJUNCTION WITH THE EQUIPMENT SCHEDULE.

LARGER ATTENUATORS WILL BE OF MODULAR CONSTRUCTION FOR EASE OF HANDLING AND MAY BE SPLIT ON THE LENGTH, WIDTH, HEIGHT OR COMBINATION THEREOF (SEE DATA SHEET A09 FOR DETAILS).

ATTENUATORS WILL BE SUPPLIED WITHOUT SUPPORT STEELWORK, BRACKETS, FIXINGS, GASKET, MASTIC OR OTHER SUCH ITEMS, UNLESS OTHERWISE STATED.

IT IS THE INSTALLERS RESPONSIBILITY TO PROVIDE THE FLANGE SEAL TO THE CONNECTING DUCT.

INSERTION LOSS, PRESSURE LOSS AND FLOW NOISE ARE DERIVED FROM TESTS CARRIED OUT IN ACCORDANCE WITH ISO 7235 AND MAY VARY DEPENDING ON INSTALLED CONDITIONS.

MANUFACTURING DIMENSIONAL TOLERANCE < 1.0 %.

## SUFFIX

THE SUFFIX TO THE ATTENUATOR MODEL DEFINES THE MATERIAL OF FABRICATION AND ANY ADDITIONAL FEATURES OR SPECIAL CONSTRUCTIONAL DETAILS.

G - PRE-GALVANISED STEEL CONSTRUCTION.

S - GRADE 316 STAINLESS STEEL CONSTRUCTION.

H1 - HIGH TEMPERATURE APPLICATION (2 HOUR/300°C).

D - DOUBLE SKIN CASING (CASING SIZE W+50 x H+50).

C - HIGH PRESSURE APPLICATION (DW 144, CLASS C).

K - PROTECTIVE PAINT FINISH TO VISIBLE INTERNAL METAL SURFACES.

J - SPLITTERS AND/OR SIDE LININGS ARRANGED HORIZONTALLY.

M - MELINEX ENCAPSULATED INFILL.

Z(\*\*\*) - MODULAR CONSTRUCTION (SEE DATA SHEET A09 FOR DETAILS).

X - SPECIAL CONSTRUCTION, REFER TO EQUIPMENT SCHEDULE FOR DETAILS.

## FLANGE DETAILS

ATTENUATORS ARE FITTED WITH 30 mm PROFILE FLANGES COMPLYING WITH DW144 AND DW/TM1.

## STANDARD SIZES

LENGTH (L1) - 600, 900, 1200, 1500, 1800, 2100, 2400, 2700, & 3000 mm.

WIDTH (W) - ANY DIMENSION ABOVE 149 mm.

HEIGHT (H) - ANY DIMENSION ABOVE 99 mm.

ALL ATTENUATORS ARE MADE TO ORDER.

NON STANDARD ATTENUATORS ARE AVAILABLE.

## WEIGHT

WEIGHTS ARE GIVEN ON THE EQUIPMENT SCHEDULE.

## MODULAR CONSTRUCTION

ATTENUATORS MANUFACTURED IN ONE SECTION WILL HAVE NO "Z" SUFFIX IN THE CODE.

WHEN ATTENUATORS ARE SUPPLIED IN MODULAR FORM, THE ACTUAL NUMBER OF SECTIONS IN THE LENGTH, WIDTH AND HEIGHT DEFINED BY THE "Z" SUFFIX. REFER TO DATA SHEET A09 FOR DETAILS.

Z

#

#

#

A "Z" SUFFIX IN THE ATTENUATOR CODE DENOTES THAT THE ATTENUATOR WILL BE SUPPLIED IN MODULES.

NUMBER OF MODULES IN LENGTH.

NUMBER OF MODULES IN WIDTH.

NUMBER OF MODULES IN HEIGHT.