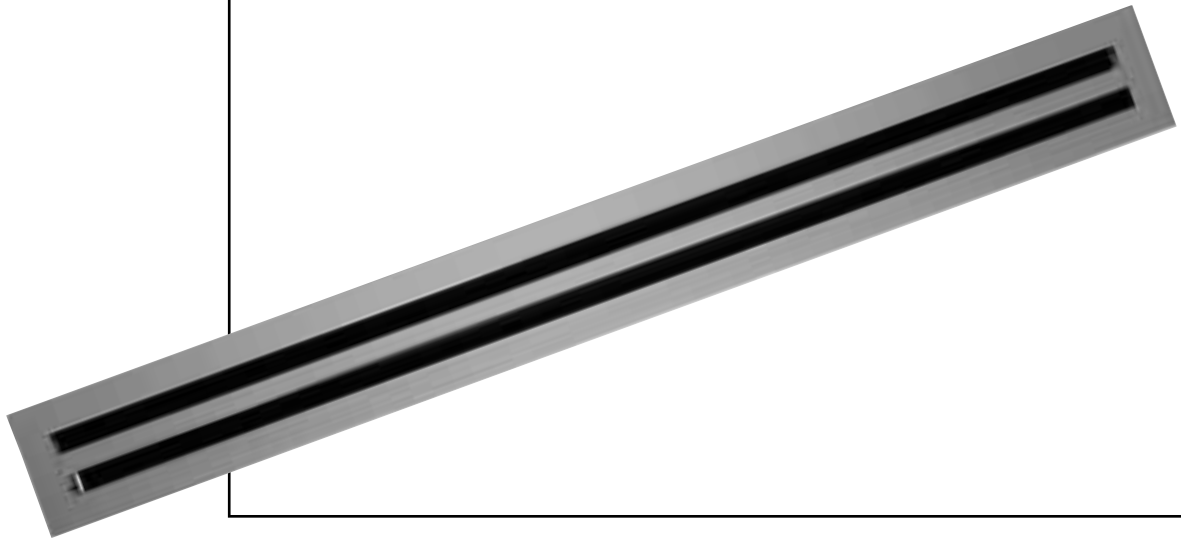




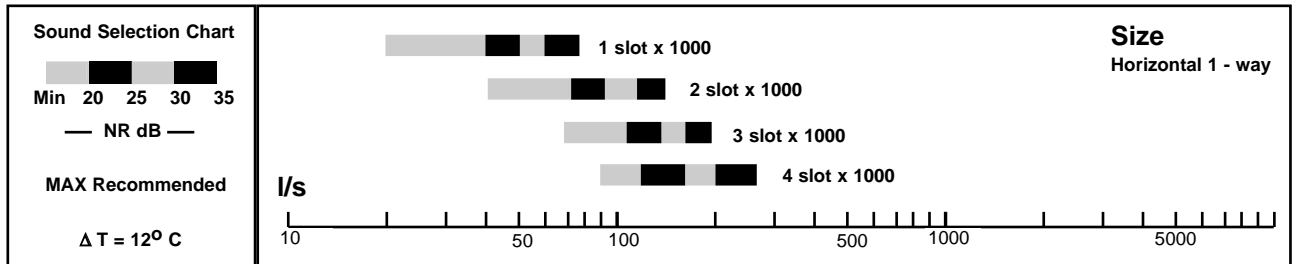
A-BLADE LINEAR DIFFUSER

2.12

ALDA



Selection Guide



Ordering procedure

Using the chart below select your requirement and substitute the underscored text below.

Type..X..S (X & Y are the nominal neck sizes of the diffuser, see overleaf.) For corners the ordering code is **Type..S**.

Example: If your requirement is for a 2 slot linear diffuser with one end and 1200mm long, the ordering code would be **ALDA1E482**. {When ordering it is not necessary to include the periods [..]}. For a 2 slot 90° corner the ordering code would be **ALDA902**.

Note! Other sizes are available. Please contact your nearest Bradflo office.

Product Size Numbers													
"Type"	"X" Size	Number of slots, "S"										Colour	
		1	2	3	4	5	6	7	8				
ALDA2E (2 ends)	24 (600)												Powder coat white Black internal blades
ALDA1E (1 end)	36 (900)												
ALDA0E (0 ends)	48 (1200)												
	72 (1800)												
	108 (2700)												
ALDAC90 (90° corner)												Special colours	
ALDAC135 (135° corner)													
Special sizes													

2.12

ALDA

A-BLADE LINEAR DIFFUSER



Description

The 2.12 (ALDA) linear diffuser is a versatile product designed for supply, return or exhaust air systems.

The design incorporates concealed aligning keyways for continuous application. Center T-rails are easily removed to simplify installation.

The blades are adjustable to facilitate an air pattern through 180°.

Maximum length of each individual piece is 2700mm.

Please discuss your requirement with your nearest Bradflo office.

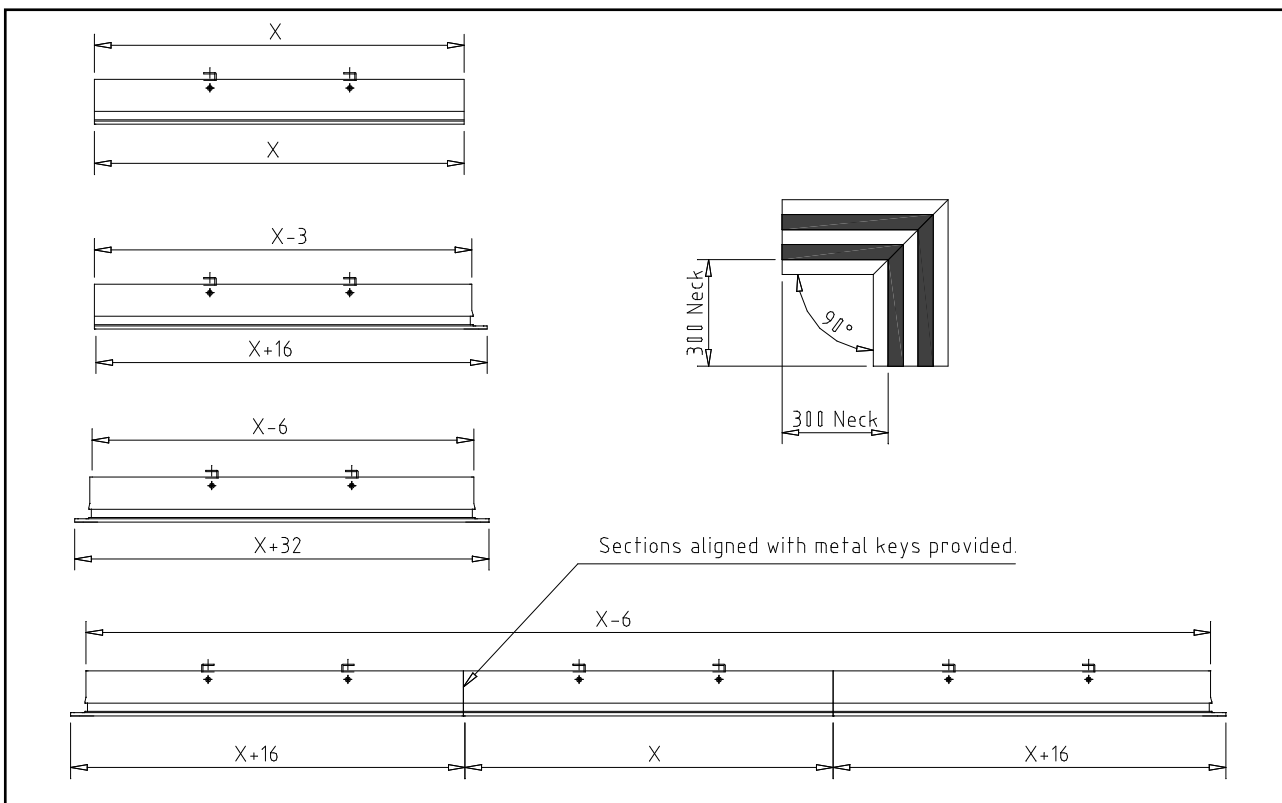
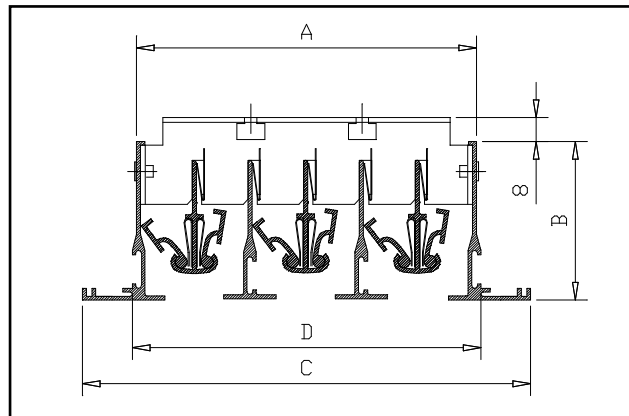
Finish

Standard finish is natural anodised or white electrostatic powdercoat. There are also 15 other colours to choose from at no additional cost.

Contact your local Bradflo branch for any special requirement you may have.

Design dimensions

Slot	A	B	C	D
1	40	53	77	50
2	78	53	115	88
3	116	53	153	126
4	154	53	192	164
5	192	53	230	202
6	230	53	268	240
7	269	53	306	279
8	307	53	344	317



Sound data

NR levels for the grille may be determined from the engineering graph.

Sound power level L_w

The generated sound power level L_w dB is calculated by adding the correction factor K_{ok} (see table below) to the sound level NR dB according to the formula:

$$L_w = NR + K_{ok}$$

No. Slots	Frequency (cycles per second)						
	125	250	500	1000	2000	4000	8000
1	+22	+12	+10	+6	+5	-2	-6
2	+23	+14	+10	+6	+5	-2	-6
3	+20	+15	+10	+6	+5	-1	-6
4	+21	+14	+10	+6	+5	0	-7
6	+21	+14	+10	+6	+5	0	-7
8	+20	+14	+10	+6	+5	-5	-6
Tol +/-	2	2	2	2	2	2	2

Correction factor K_{ok}

Data shown in engineering graphs is for lengths of 1000 mm. For other lengths, refer to the correction tables below.

Correction tables

Diffuser length (m)	0.5	1	1.5	2	3
Add to NR value	-3	0	+2	+3	+5
Multiply throw by	0.7	1	1.25	1.4	1.55

Horizontal pattern

Diffuser length (m)	0.5	1	1.5	2	3
Add to NR value	-3	0	+2	+3	+5
Multiply throw by	0.7	1	1.2	1.4	1.5

Vertical pattern

Diffuser length (m)	0.5	1	1.5	2	3
Add to NR value	-3	0	+2	+3	+5

Return air

Air pattern

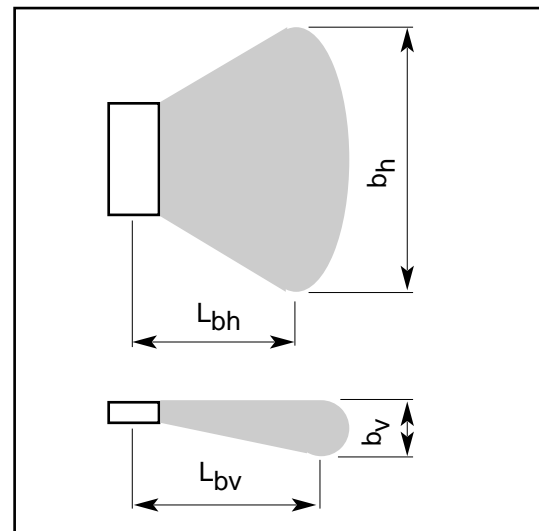
(with isothermal air supply)

$$b_h = L_{0.3} \times 0.02 + \text{length}$$

$$L_{bh} = L_{0.3} \times 0.7$$

$$b_v = L_{0.3} \times 0.07$$

$$L_{bv} = L_{0.3} \times 0.6$$



Model 2.12 is a diffuser which provides variable air flow pattern controls by means of individually operated blades. This type of control does afford some degree of volume adjustment.

The design of the blades is such that noise generation is kept to a minimum.

2.12

ALDA

A-BLADE LINEAR DIFFUSER



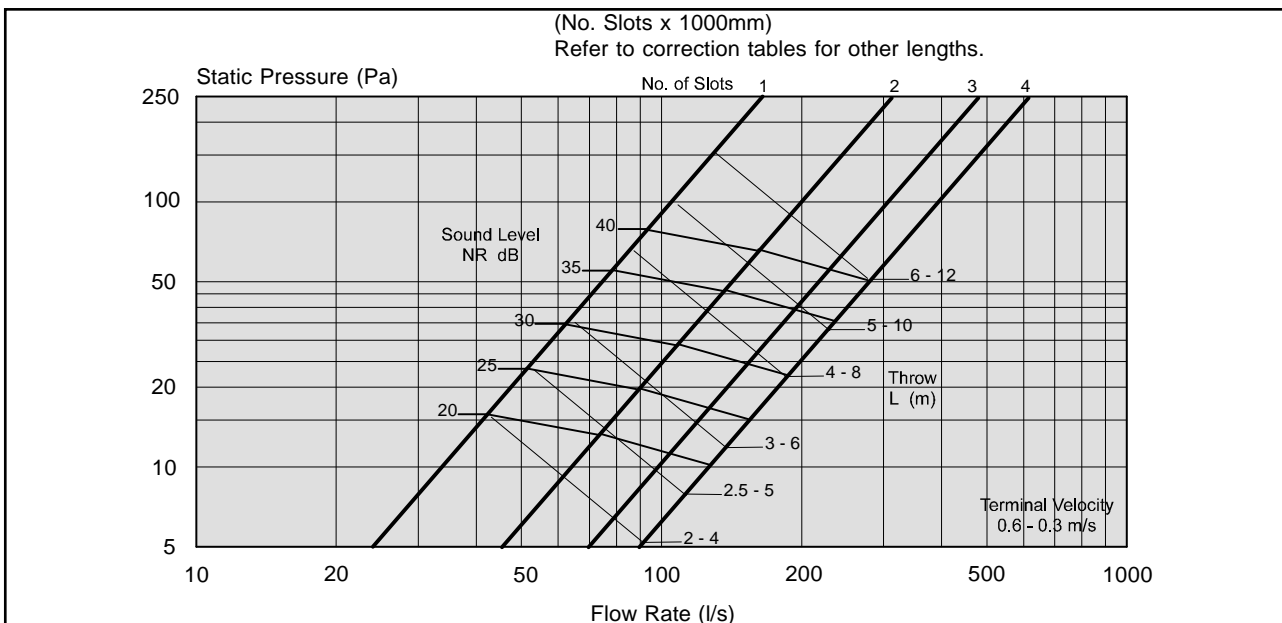
Engineering Graphs

Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s. Throw is given for equal slots in each direction.

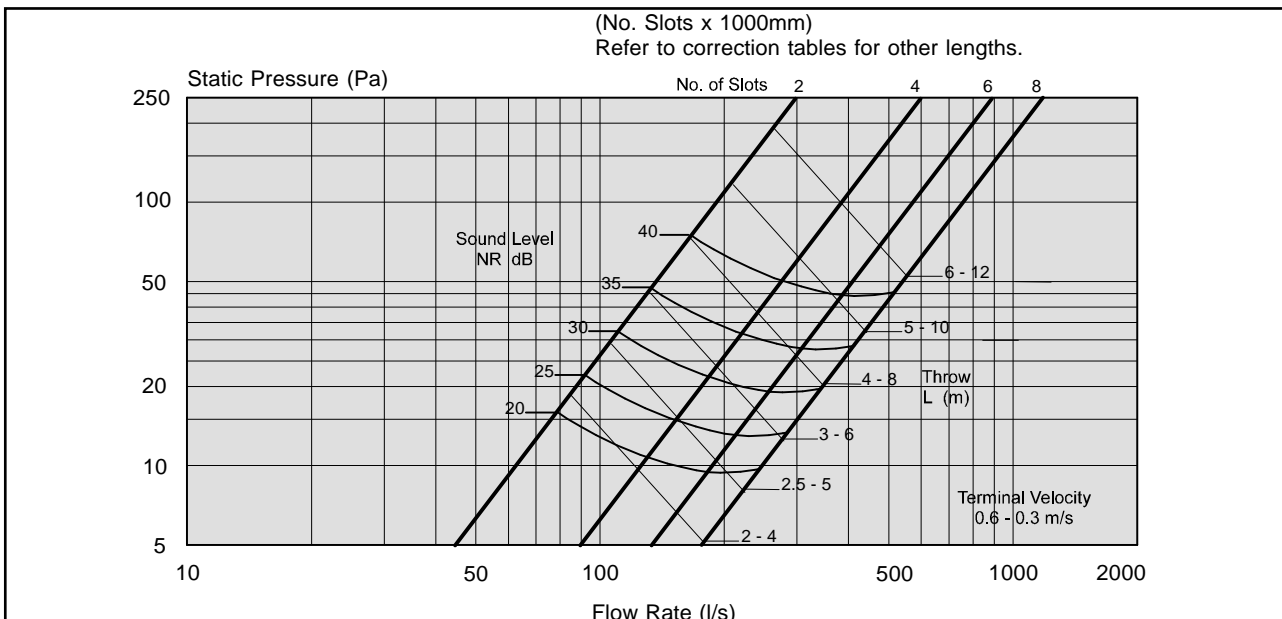
Terminal velocity	Approximate air velocity in room
0.60 m/s	0.30 m/s
0.30 m/s	0.15 m/s

These graphs are for selection only and should not be used for commissioning.

ALDA horizontal 1-way pattern



ALDA horizontal 2-way pattern





A-BLADE LINEAR DIFFUSER

2.12

ALDA

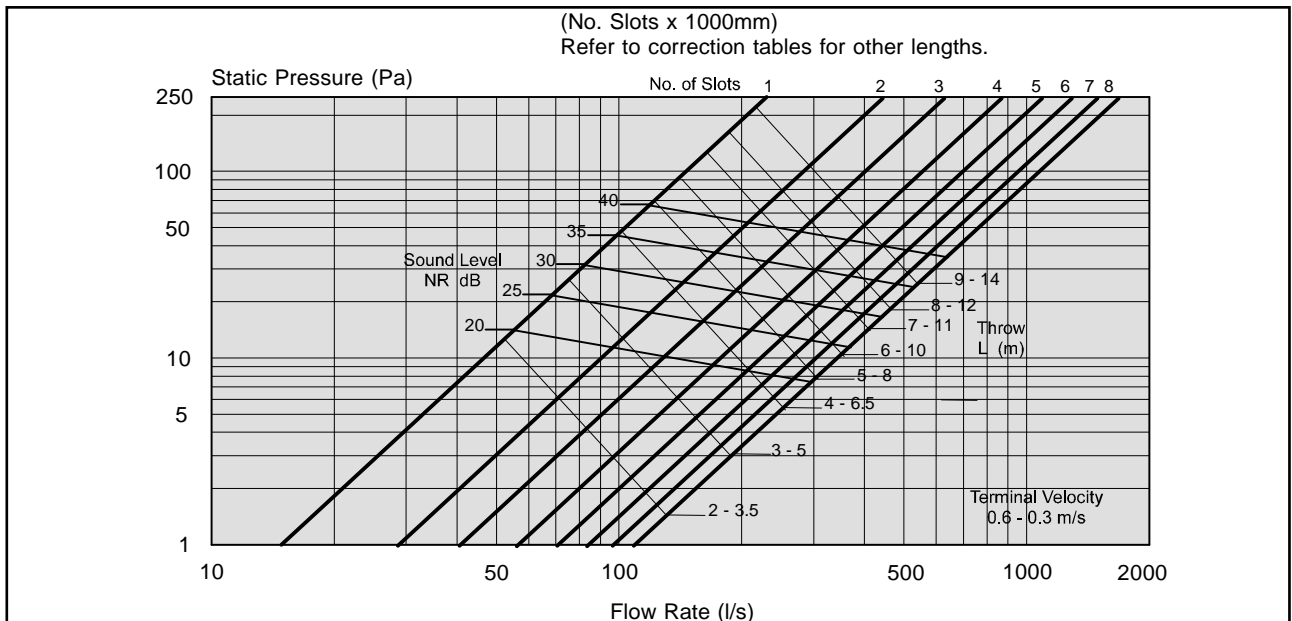
Engineering Graphs

Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s. Throw is given for equal slots in each direction.

Terminal velocity	Approximate air velocity in room
0.60 m/s 0.30 m/s	0.30 m/s 0.15 m/s

These graphs are for selection only and should not be used for commissioning.

ALDA vertical projection



ALDA return air

