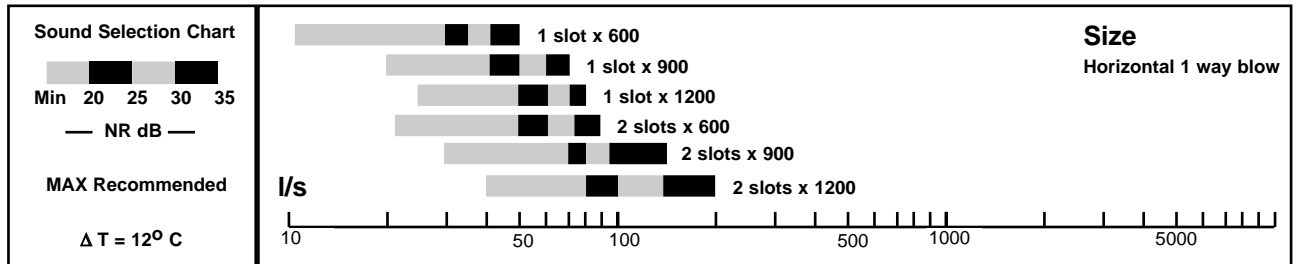




Selection Guide



Ordering procedure

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

Type..S..X..I (X is the overall length of the diffuser.)

Example: If your requirement is for a 2 slot insulated plenum diffuser 1200mm long with a 225 dia. inlet, the ordering code would be **AVPAI24809**. {When ordering it is not necessary to include the periods [..]}.

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

Product Size Numbers										
"Type"	"X" Size	Number of slots "S"				Inlet diameter "I"				Colour
		1	2			08 (200)	09 (225)	10 (250)		
AVPA (uninsulated)	24 (600)									
AVPAI (insulated)	36 (900)									
	48 (1200)									
Special lengths										

2.13

AVPA

PLENUM DIFFUSER



Description

The 2.13 (AVPA) is a linear plenum diffuser designed to suit ceiling T-Bar systems. It has been designed specifically for perimeter air distribution systems although it can be used for other applications.

Special consideration has been given to the various T-Bar ceiling systems in common use. The 2.13 is compatible with T-Bar face sizes from 25 to 30 mm. The insulation is 25mm thick glasswool with the ends uninsulated. Other types of insulation are available

The 2.13 diffusers are designed to handle maximum air quantities at the lowest practicable sound levels and are available in either one or two slot configurations.

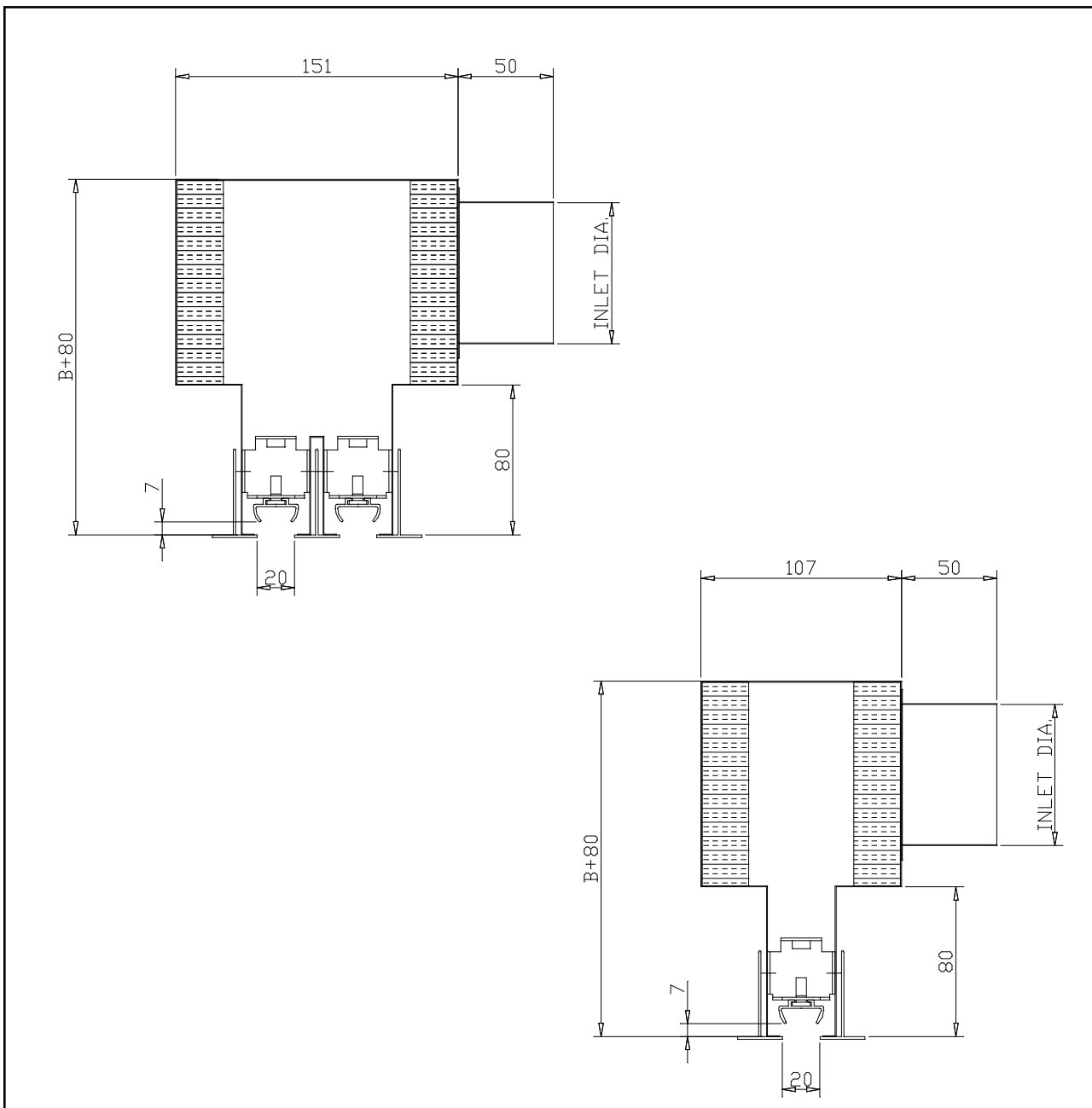
All diffusers are manufactured from galvanised steel and aluminium. The blade position is adjustable through the face of the diffuser.

Finish

All visible surfaces in situ are painted black.

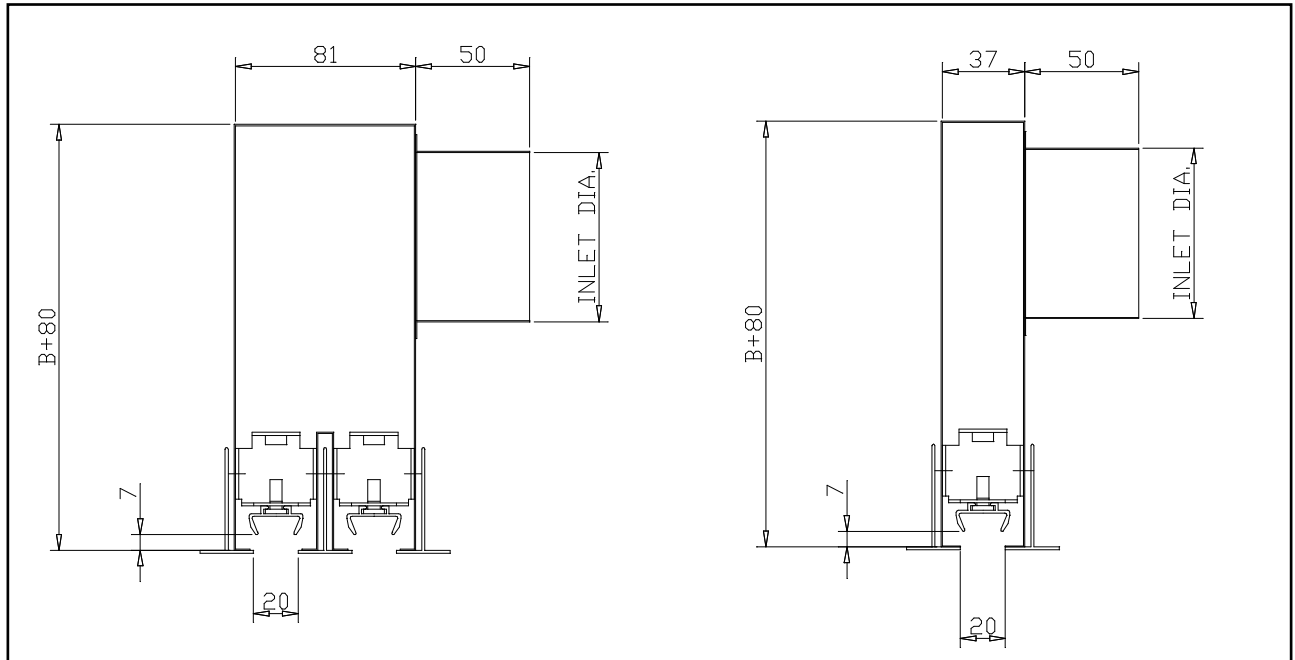
Design dimensions

AVPAI Insulated



Design Dimensions

AVPA Non Insulated



Standard sizes available.

Slots	Size	Overall Length	B	Inlet Diameter
1	600-200	600	250	200
1	900-200	900	250	200
1	900-225	900	275	225
1	1200-200	1190	250	200
1	1200-225	1190	275	225
1	1200-250	1190	300	250
2	600-200	600	250	200
2	900-200	900	250	200
2	900-225	900	275	225
2	1200-200	1190	250	200
2	1200-225	1190	275	225
2	1200-250	1190	300	250

2.13

AVPA

PLENUM DIFFUSER



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	+14	+16	+11	+6	+5	0	0
2	+15	+12	+8	+6	+5	-5	-21
Tol +/-	2	2	2	2	2	2	2

Correction factor K_{ok}

Sound absorption ΔL dB

The sound absorption shown relates to a reduction of the sound power level calculated from duct to room. The orifice loss is included in the values.

No. Slots	Frequency (cycles per second)						
	125	250	500	1000	2000	4000	8000
1	14	9	9	15	15	15	14
2	14	10	9	13	7	10	11
Tol +/-	2	2	2	2	2	2	2

Air pattern

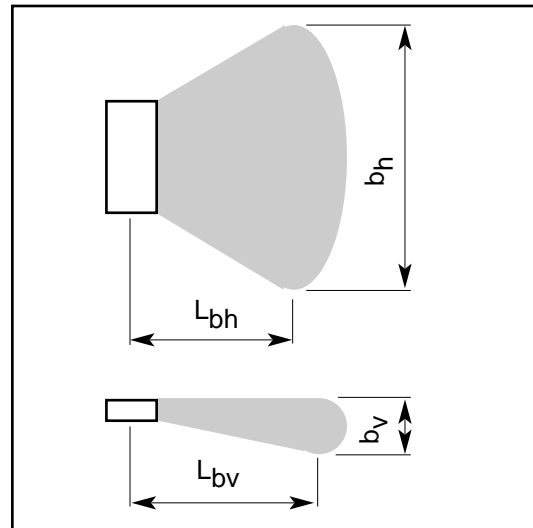
(with isothermal air supply)

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

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

$$b_v = L_{0.3} \times 0.08$$

$$L_{bv} = L_{0.3} \times 0.5$$





PLENUM DIFFUSER

2.13

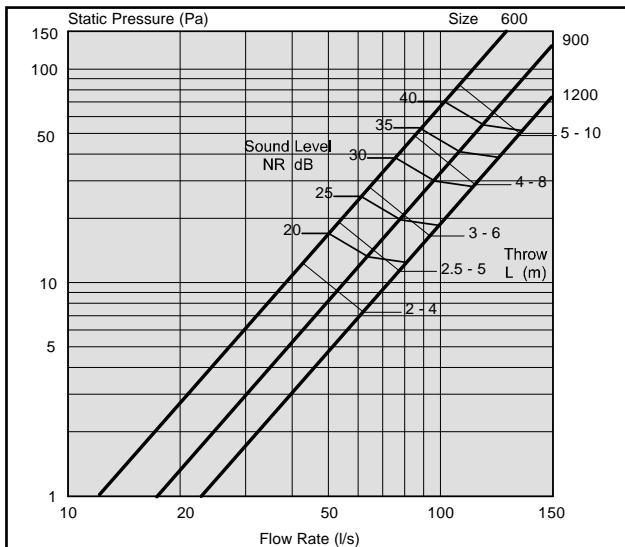
AVPA

Engineering Graphs

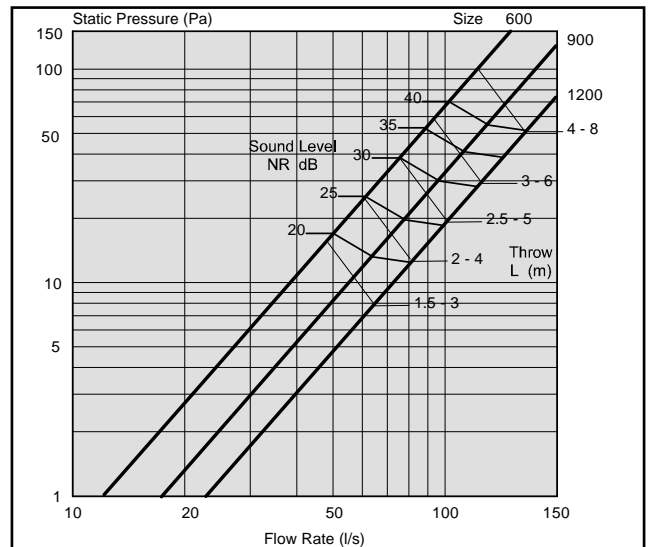
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

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

AVPA 2 Slots 1-way blow



AVPA 2 Slots 2-way blow



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

AVPA 1 Slots 1-way blow

