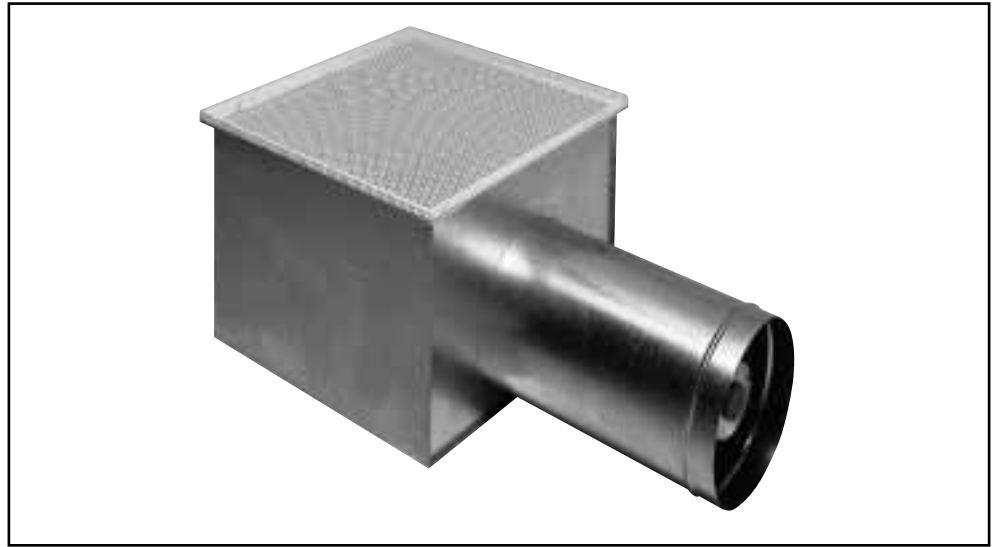


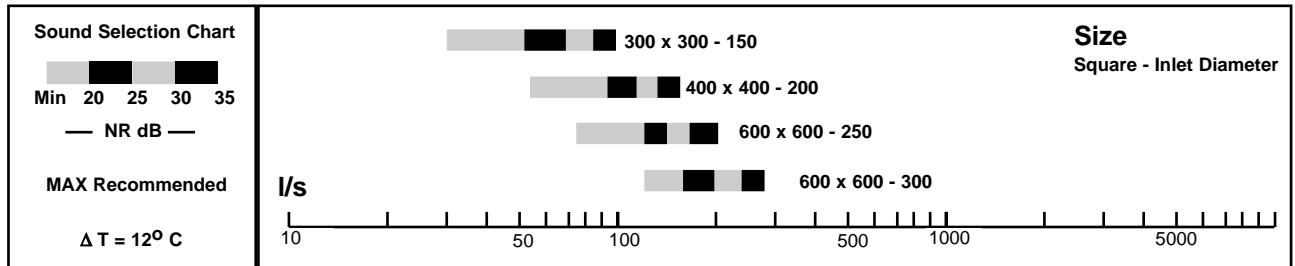


ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

2.66
APM



Selection Guide



Ordering procedure

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

Type..X..C..B (X is the nominal face size of the diffuser).

Example: If your requirement is for a 400 mm square multi-function plenum with a 200 mm inlet, corner blow, the ordering code would be **APM1608C** (When ordering it is not necessary to include the periods[.]).

Product Size Numbers												
"Type"	"X" Size	Inlet dia. "C"				Blow pattern "B"					Colour	
		06 (150)	08 (200)	10 (250)	12 (300)	1 Way	2 Way	3 Way	4 Way	Corner Blow		
APM	12 (300)										C	Powder coat white
	16 (400)										C	
	24 (600)										C	
												Special colours

2.66

APM

ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM



Description

The 2.66 (APM) diffuser has been designed for air conditioning systems where a draught free, quiet and pleasant atmosphere is required. They are especially suited for variable air volume systems.

Through slots around the perimeter of the diffuser a primary air stream is projected along the ceiling. The volume of air out of these slots may be controlled by using the 3 position adjustment available at the face of the diffuser.

The diffuser is manufactured to match the 2.64 and 2.66 models in appearance.

The air pattern is fully radial and may also be supplied in either 1, 2 or 3-way patterns.

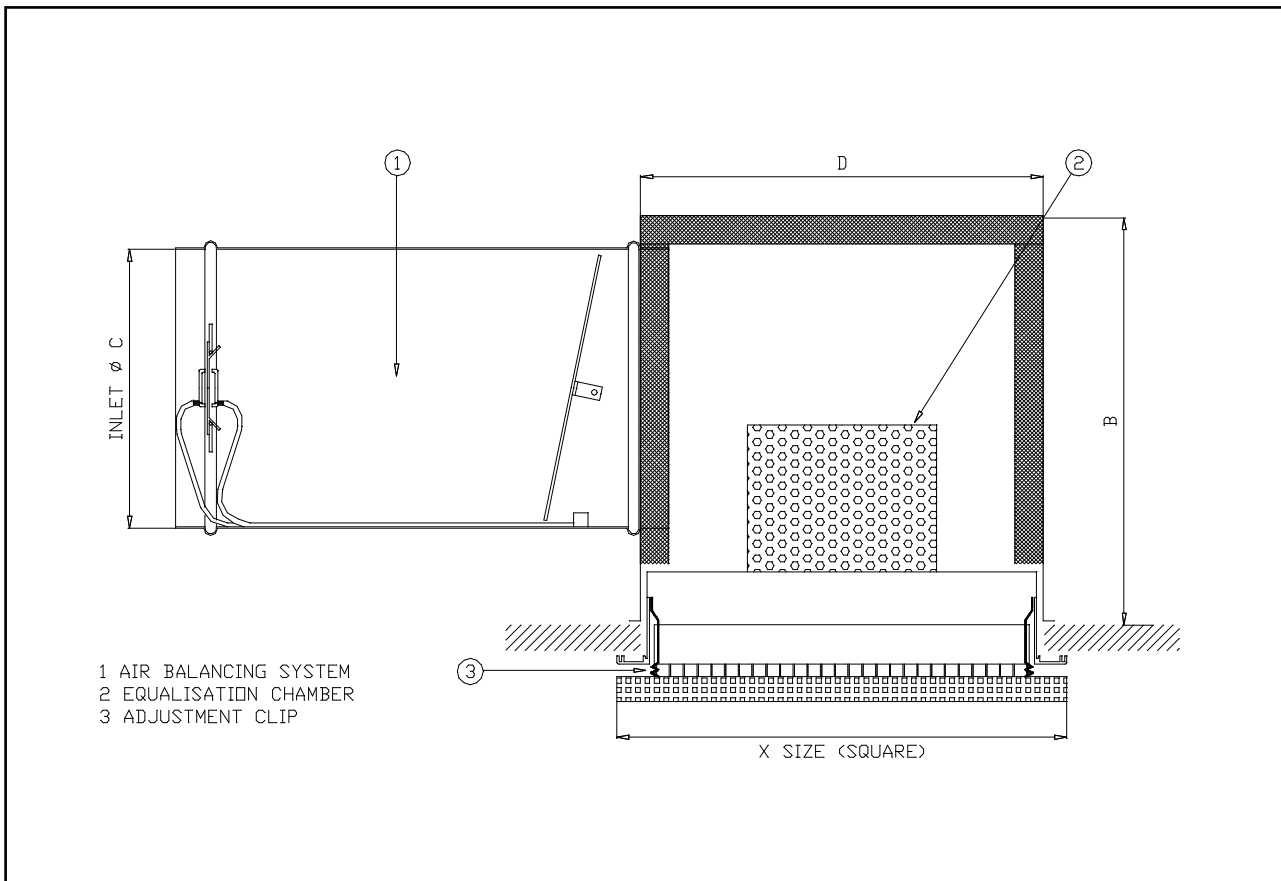
The pressure reducing plenum chamber contains a regulating damper, sound attenuation and balancing system. This system eliminates the need to remove any part of the ceiling or diffuser during air balancing.

Finish

The standard finish is white unless otherwise specified.

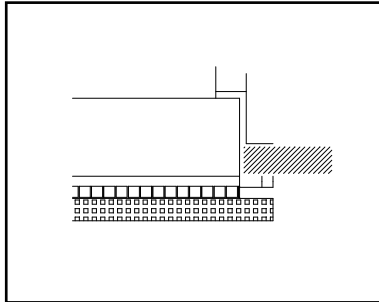
There are 15 other standard colours available.

Design dimensions

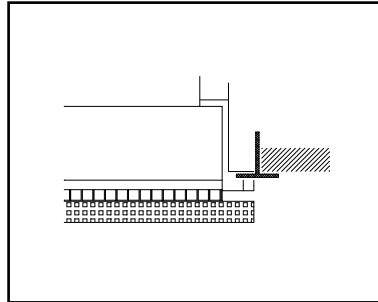


Size	X	B	C	D
A 300 - 150	300	300	150	254
B 400 - 150	400	300	150	354
C 400 - 200	400	350	200	354
D 600 - 200	600	350	200	554
E 600 - 250	600	400	250	554
F 600 - 300	600	450	300	554

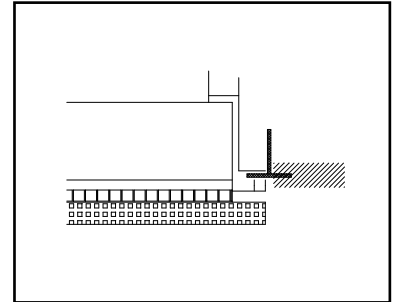
Applications



Plaster ceiling



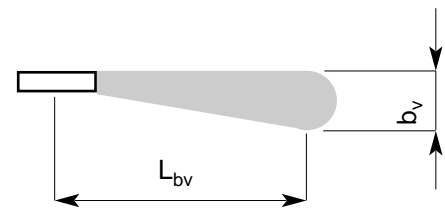
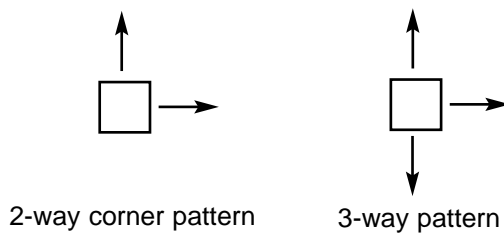
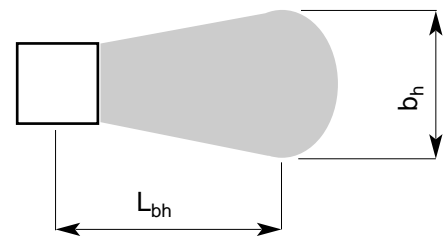
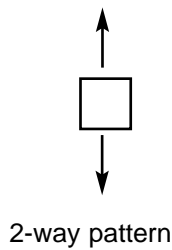
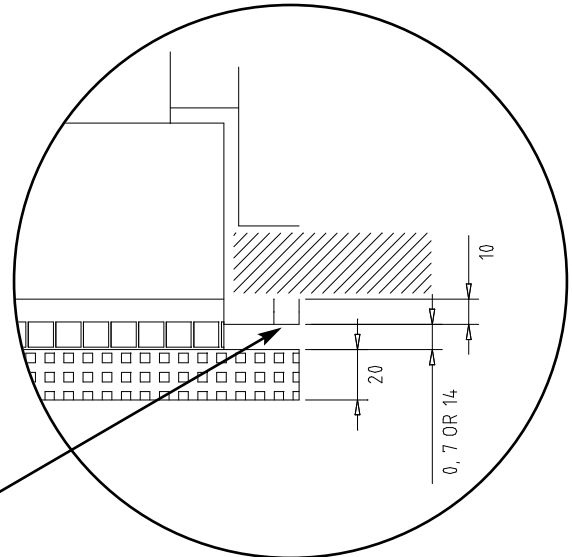
Exposed T-Bar



Concealed T-Bar

Perforated centre core can be adjusted to any one of three positions from face side of grille.

0 mm, 7mm & 14 mm
Adjustable gap



Refer to next page for formulas to determine the isothermal air pattern.

2.66

APM

ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM



Adjustable throw

The throw may be adjusted according to the following table by raising or lowering the diffuser fascia panel.

Perimeter Slot	Multiply Throw by:
0 mm	1.2
7 mm	1.1
14 mm	1

Factors for different patterns.

	4-Way	3-Way	2-Way	2-Way Corner	1-Way
$b_h = L_{0.3} \times$	-	0.40	1.00	0.50	0.90
$L_{bh} = L_{0.3} \times$	-	0.40	0.50	0.40	0.30
$b_v = L_{0.3} \times$	0.05	0.05	0.05	0.05	0.06
$L_{bv} = L_{0.3} \times$	0.40	0.40	0.40	0.40	0.40

L_{bh} = distance from diffuser to maximum spread.

b_v = vertical spread

b_h = horizontal spread

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:

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

Size	Frequency (cycles per second)						
	125	250	500	1000	2000	4000	8000
300-150							
Open	+16	+13	+7	+8	-3	-10	-18
Closed	+4	+12	+9	+5	+3	+2	-3
400-150							
Open	+15	+12	+6	+6	+3	-12	-18
Closed	+15	+14	+8	+8	+3	+2	-2
400-200							
Open	+19	+12	+7	+6	-6	-14	-20
Closed	+7	+9	+5	+6	+2	+2	+1
600-200							
Open	+14	+8	+3	+8	-2	-9	-18
Closed	+22	+10	+7	+7	0	-5	-8
600-250							
Open	+20	+12	+7	+4	-5	-12	-16
Closed	+22	+10	+7	+5	-3	-8	-8
600-300							
Open	+17	+9	+7	+4	-8	-16	-21
Closed	+15	+10	+6	+6	+1	0	-5
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 end reflection is included in the values.

Size	Frequency (cycles per second)						
	125	250	500	1000	2000	4000	8000
300-150	16	16	13	14	18	20	18
400-150	13	15	13	15	18	17	15
400-200	13	15	13	15	18	17	15
600-200	13	15	13	15	18	17	15
600-250	12	15	13	15	18	17	15
600-300	8	14	13	15	18	16	15
Tol +/-	2	2	2	2	2	2	2



ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

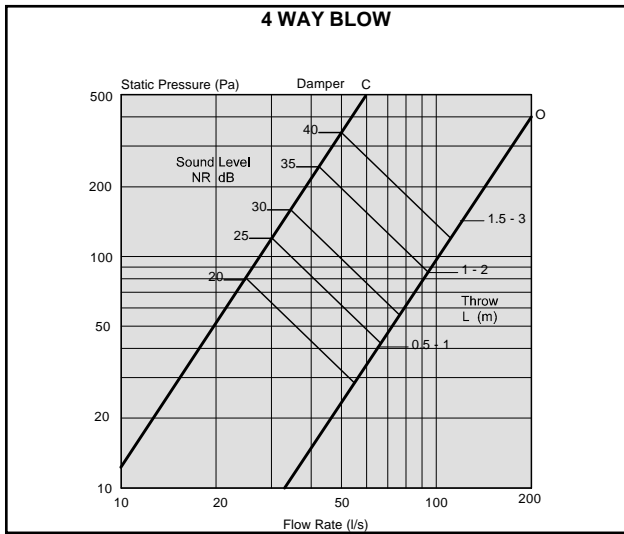
2.66
APM

Engineering Graphs

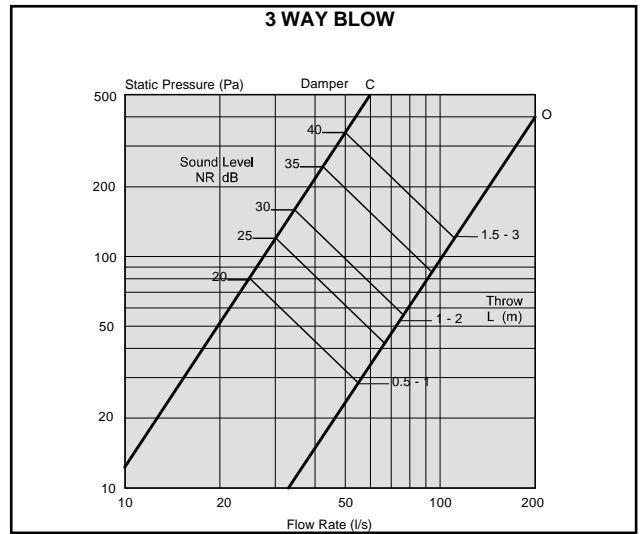
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

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

APM 300 x 300 - 150

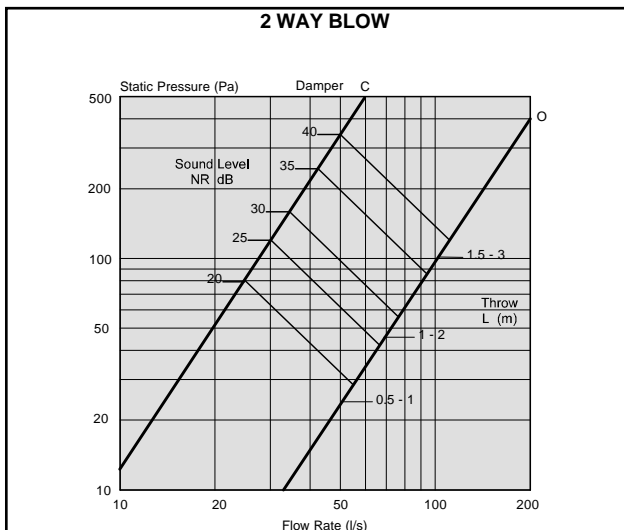


APM 300 x 300 - 150

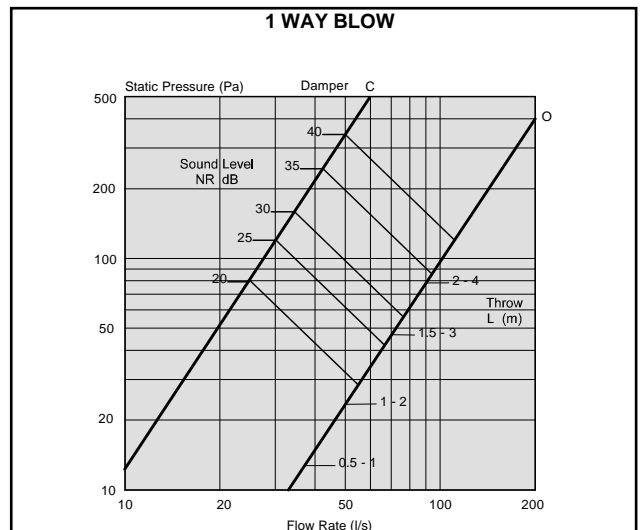


These graphs are for selection only and should not be used for commissioning.

APM 300 x 300 - 150



APM 300 x 300 - 150



2.66

APM

ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

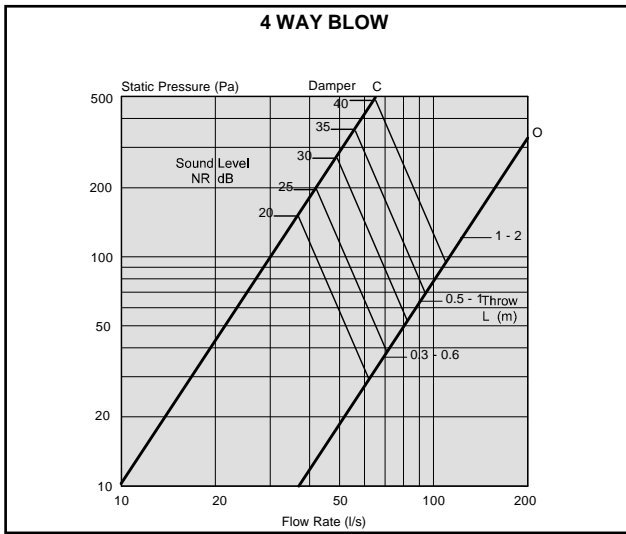


Engineering Graphs

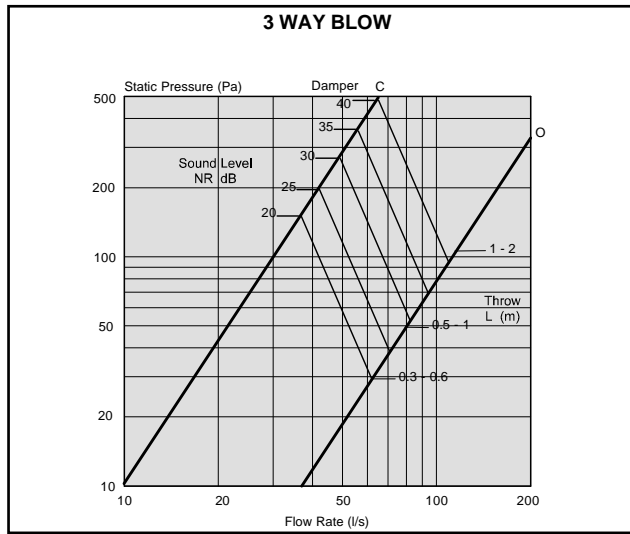
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

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

APM 400 x 400 - 150

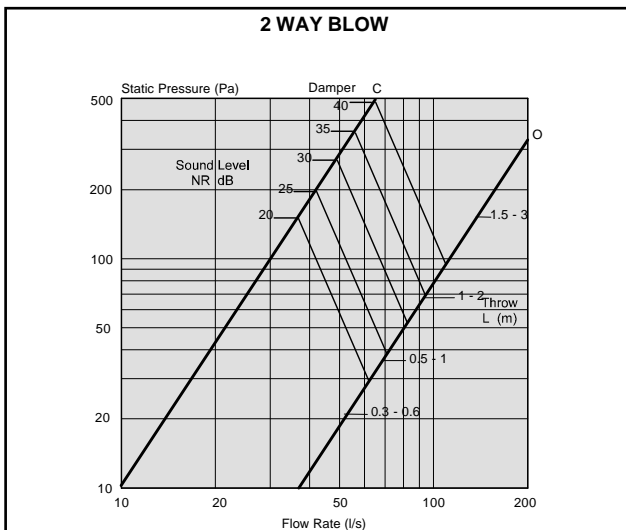


APM 400 x 400 - 150

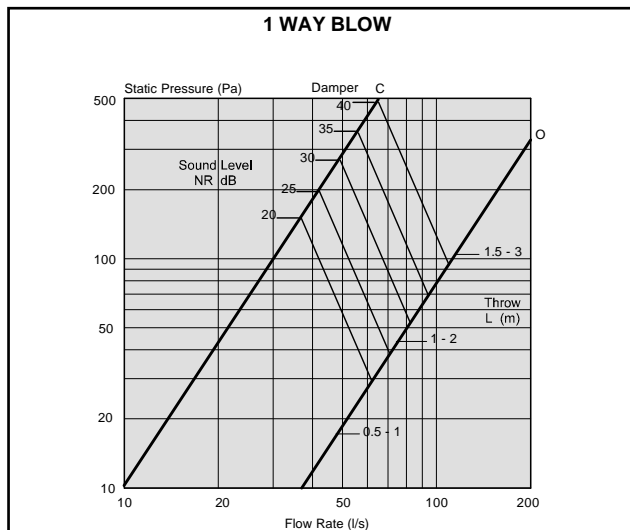


These graphs are for selection only and should not be used for commissioning.

APM 400 x 400 - 150



APM 400 x 400 - 150





ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

2.66

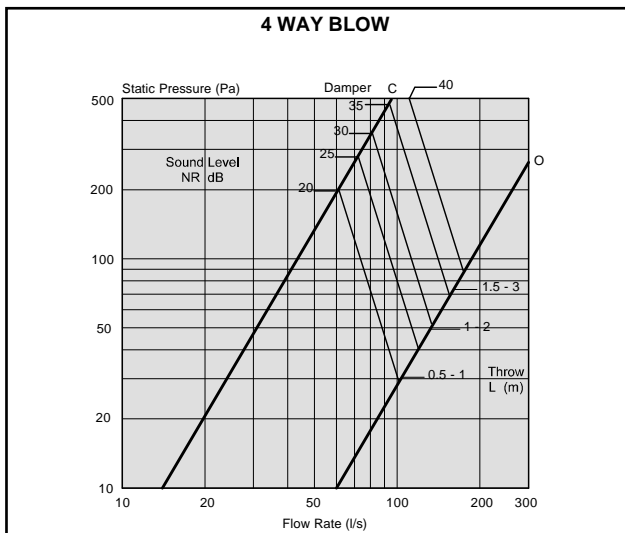
APM

Engineering Graphs

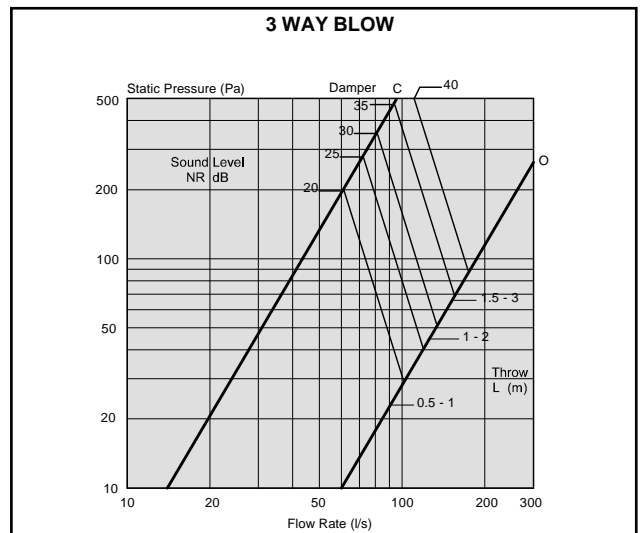
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

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

APM 400 x 400 - 200

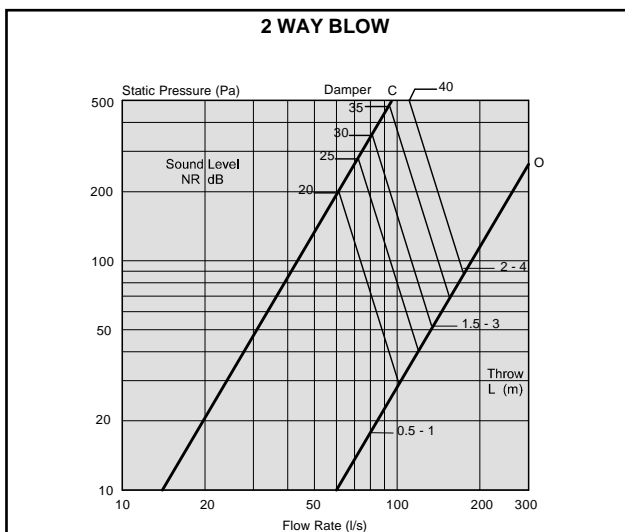


APM 400 x 400 - 200

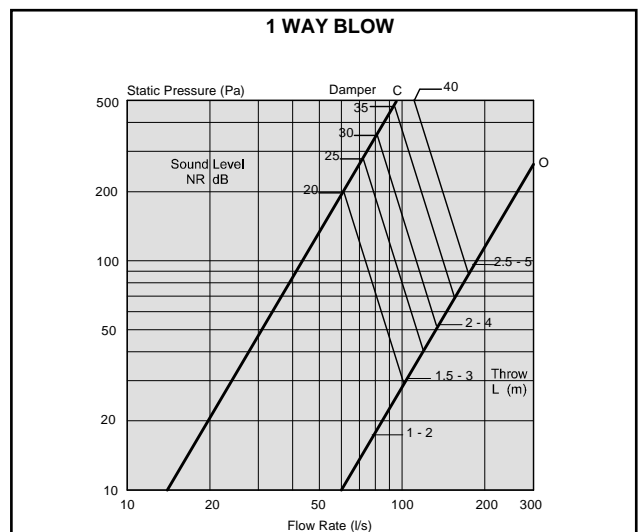


These graphs are for selection only and should not be used for commissioning.

APM 400 x 400 - 200



APM 400 x 400 - 200



2.66

APM

ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM



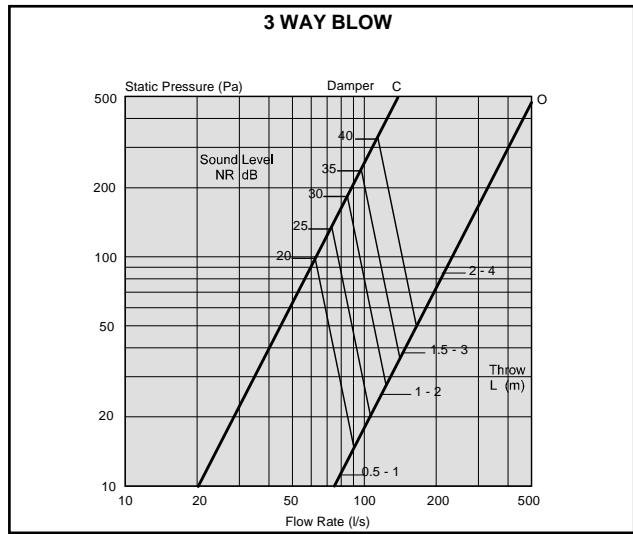
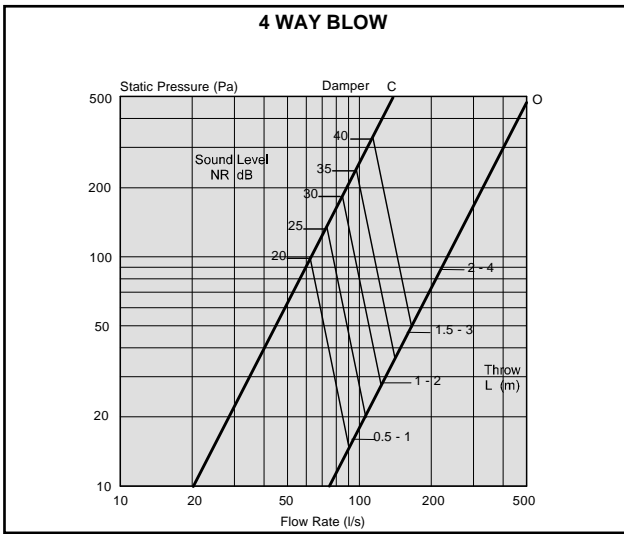
Engineering Graphs

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

APM 600 x 600 - 200

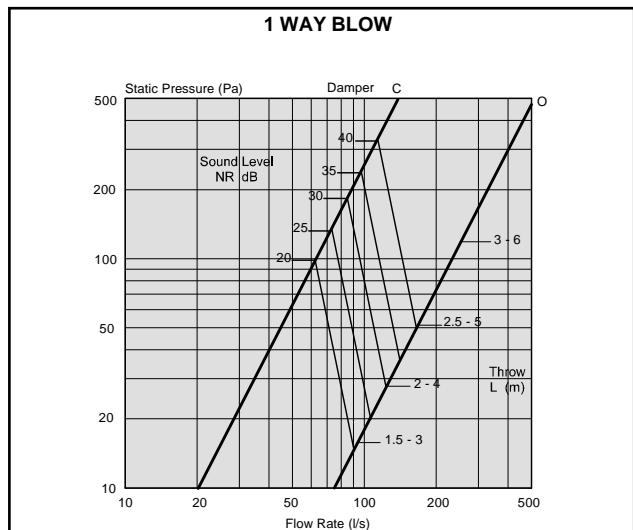
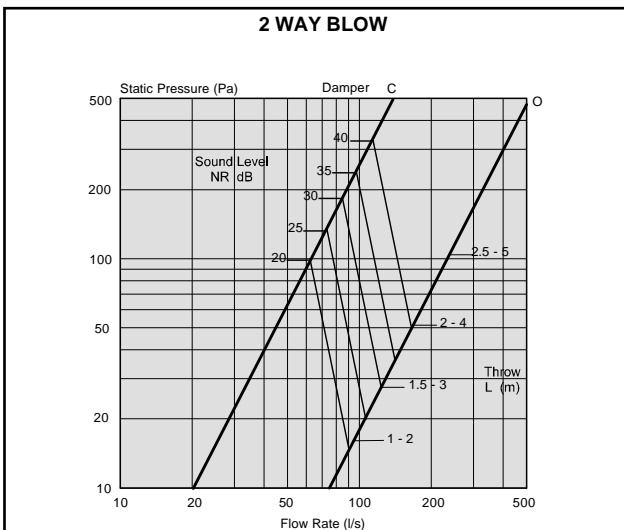
APM 600 x 600 - 200



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

APM 600 x 600 - 200

APM 600 x 600 - 200





ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

2.66

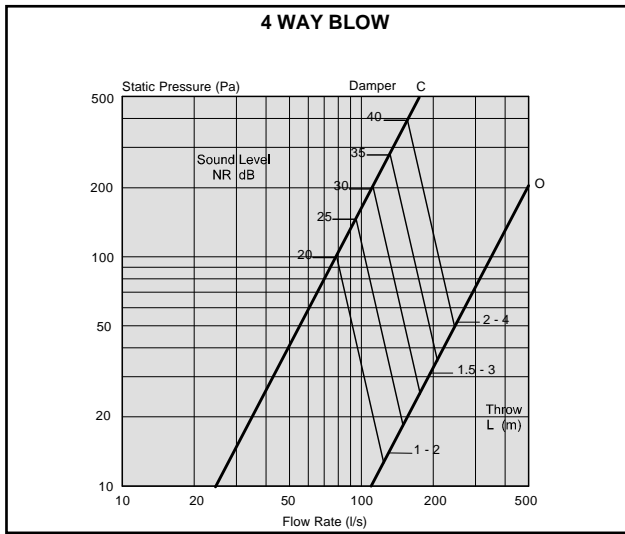
APM

Engineering Graphs

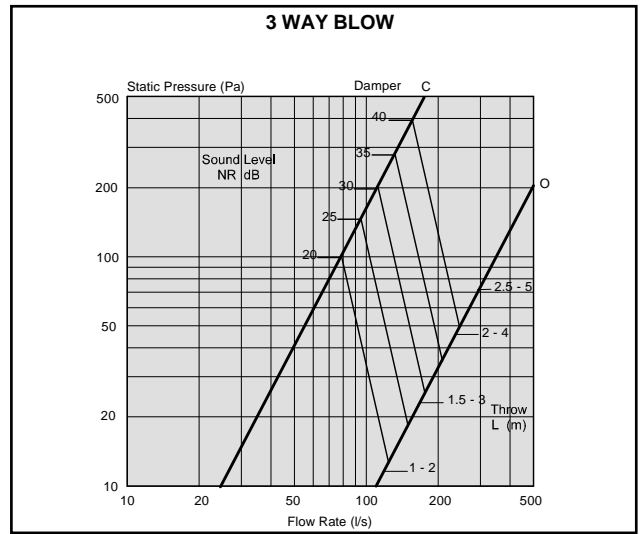
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s. Other terminal velocities may be calculated using formulas in Section 4.2 of the Air Handling Reference Guide.

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

APM 600 x 600 - 250

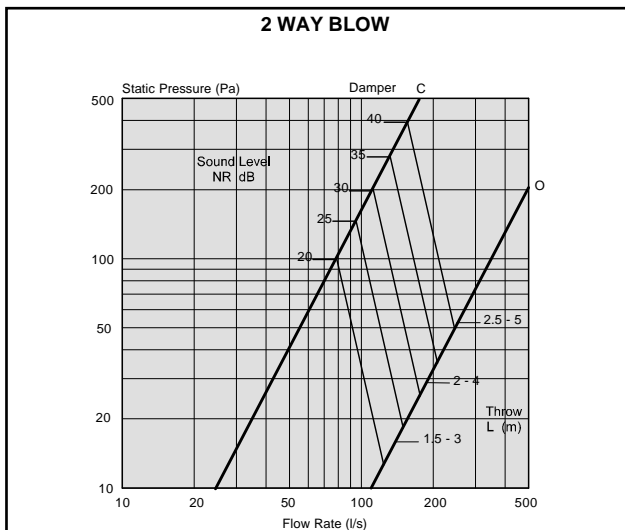


APM 600 x 600 - 250

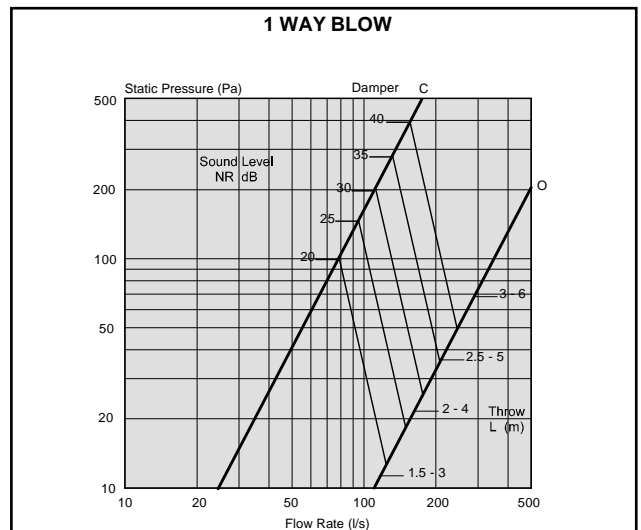


These graphs are for selection only and should not be used for commissioning.

APM 600 x 600 - 250



APM 600 x 600 - 250



2.66

APM

ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

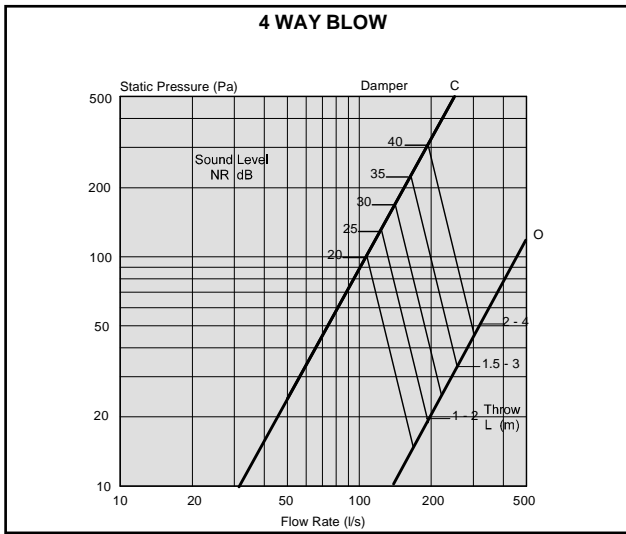


Engineering Graphs

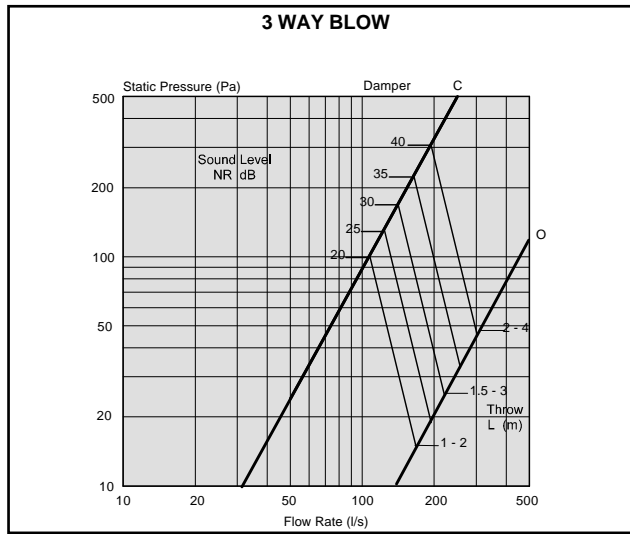
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s. Other terminal velocities may be calculated using formulas in Section 4.2 of the Air Handling Reference Guide.

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

APM 600 x 600 - 300

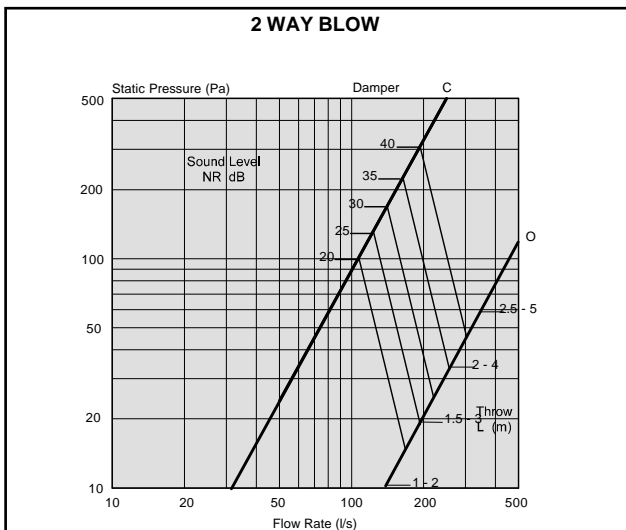


APM 600 x 600 - 300

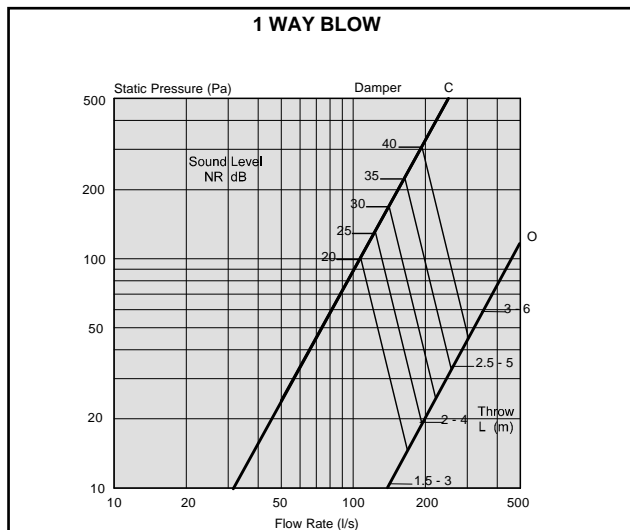


These graphs are for selection only and should not be used for commissioning.

APM 600 x 600 - 300



APM 600 x 600 - 300



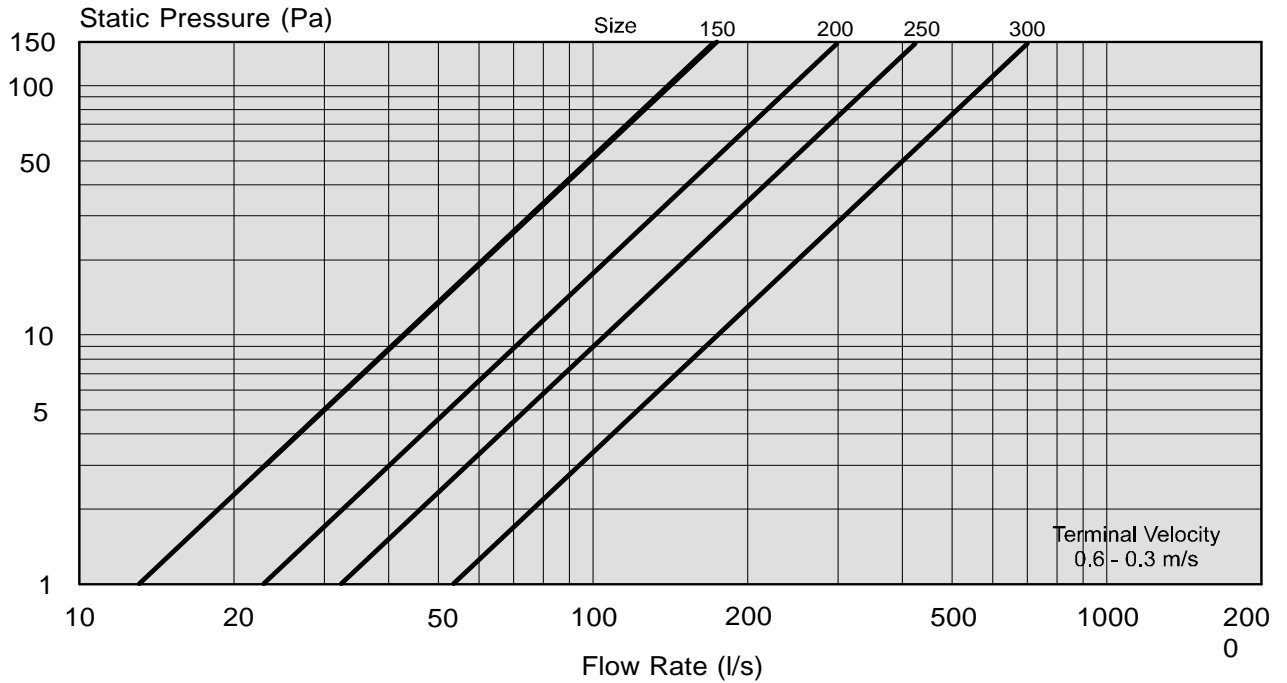


ENVIRONMENT 2000 DIFFUSER WITH MULTI- FUNCTION PLENUM

2.66

APM

BALANCING GRAPH



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