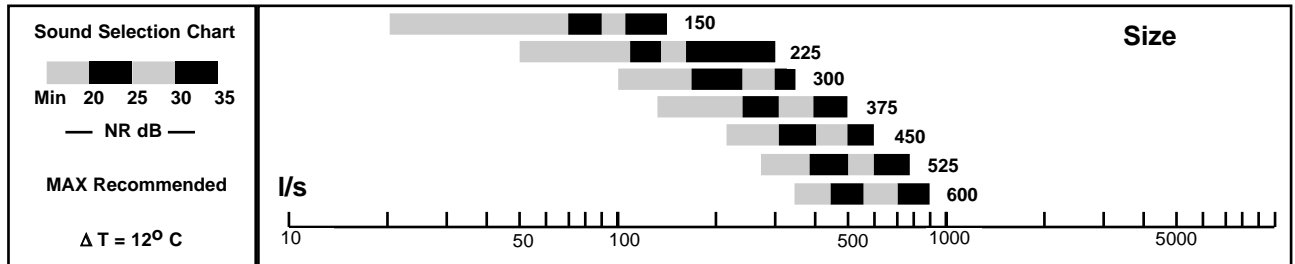


Selection Guide



Ordering procedure

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

ACTL.T.W.X.Y (X & Y are the nominal neck sizes of the diffuser, see overleaf.)

Example: If your requirement is for a 12" x 12" (300mm x 300mm) 3 Way blow diffuser, the ordering code would be **ACTL3W1212**. {When ordering it is not necessary to include the periods [..]}

Product Size Numbers									
		"Y" Size							
"T"	Type	"X" Size	06	09	12	15	18		Colour
1	3 Way blow	06 (150)							Powdercoat White
2	4 Way blow	09 (225)							
		12 (300)							
		15 (375)							
		18 (450)							
	Special blow								Special colours

2.36

ACTL

DIRECTIONAL DIFFUSER



Description

The 2.36 (ACTL) square cone type directional diffuser has an aluminium frame and steel core construction. It has been designed to meet modern building requirements.

Standard frame configurations are available which are suitable for T-bar, tile or plaster ceilings.

To maximise versatility, the 2.36 series diffuser offers a number of different blow patterns.

The core section is removable for easy installation and maintenance.

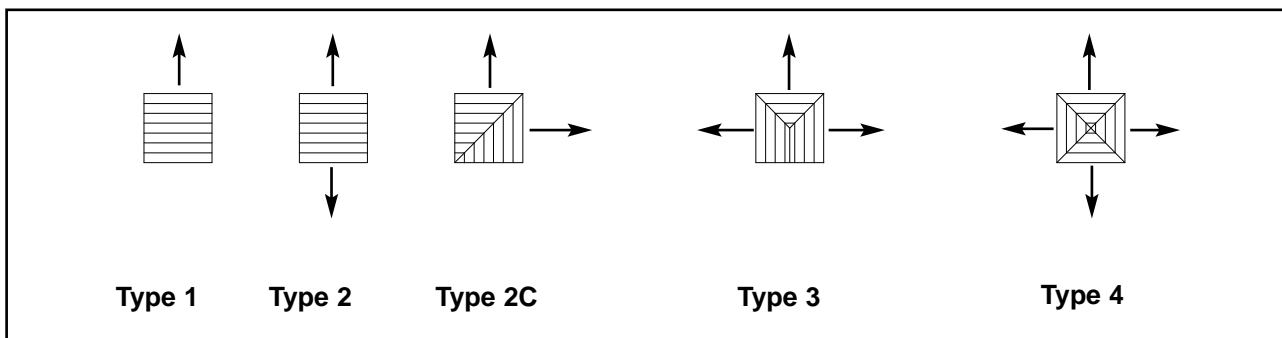
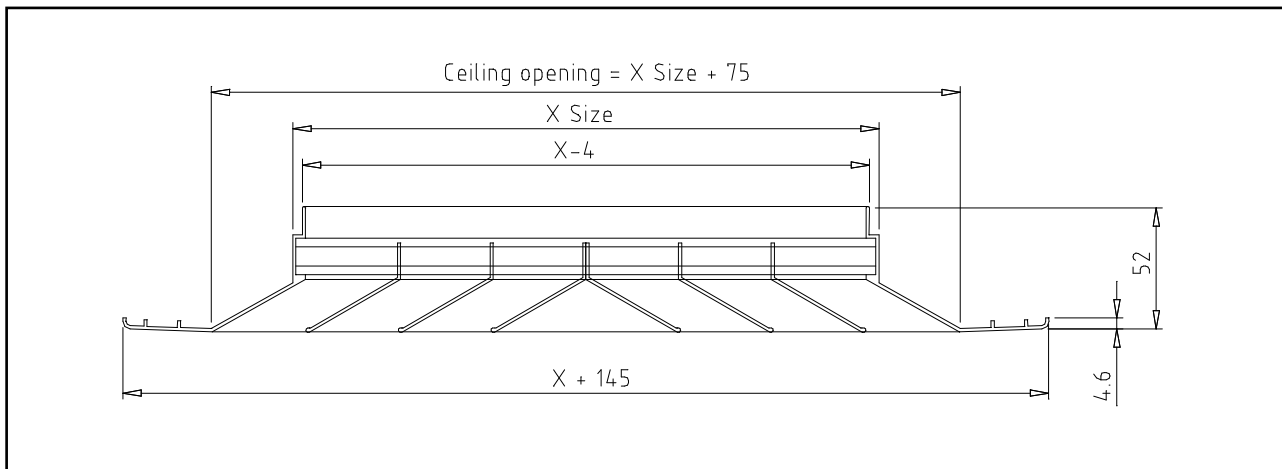
As with all Bradflo air products, this diffuser offers maximum air flow characteristics whilst maintaining low noise levels.

Finish

The standard finish is powdercoat white, baked at a temperature of 180 deg. C. There are fifteen other standard colours available.

Other colours are available as specials upon request.

Note! Blanking plates are available for all diffuser types as a special order.
Refer to following pages for performance data.



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
150	+17	+13	+10	+8	+3	-5	-15
225	+14	+11	+10	+8	+1	-10	-16
300	+13	+9	+9	+8	-3	-15	-18
450	+13	+9	+11	+7	-6	-21	-21
525	+12	+8	+10	+7	-4	-23	-24
600	+12	+7	+9	+7	-4	-23	-24
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
150	14	10	5	1	0	0	0
225	13	9	4	0	0	0	0
300	10	6	2	0	0	0	0
450	9	5	1	0	0	0	0
525	7	3	1	0	0	0	0
600	6	3	1	0	0	0	0
Tol +/-	2	2	2	2	2	2	2

Air pattern

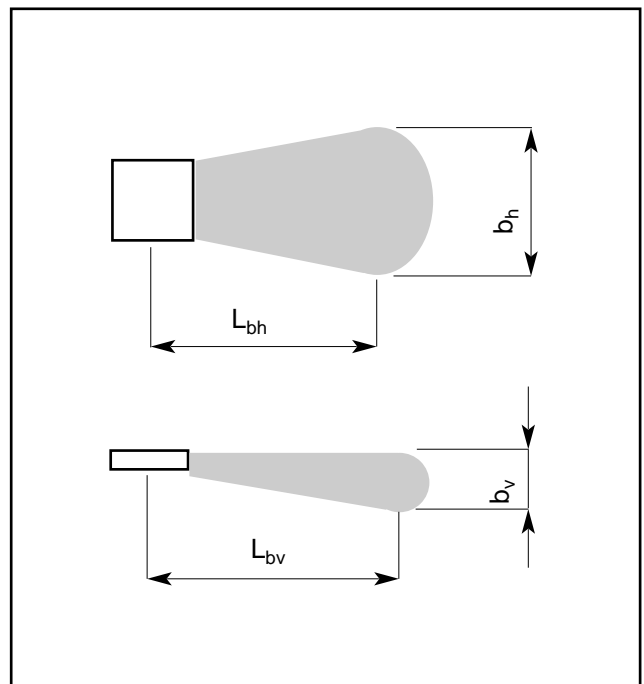
(with isothermal air supply)

$$b_h = L_{0.3} \times 0.03$$

$$L_{bh} = L_{0.3} \times 0.65$$

$$b_v = L_{0.3} \times 0.06$$

$$L_{bv} = L_{0.3} \times 0.65$$



2.36

ACTL

DIRECTIONAL DIFFUSER



Engineering Graphs

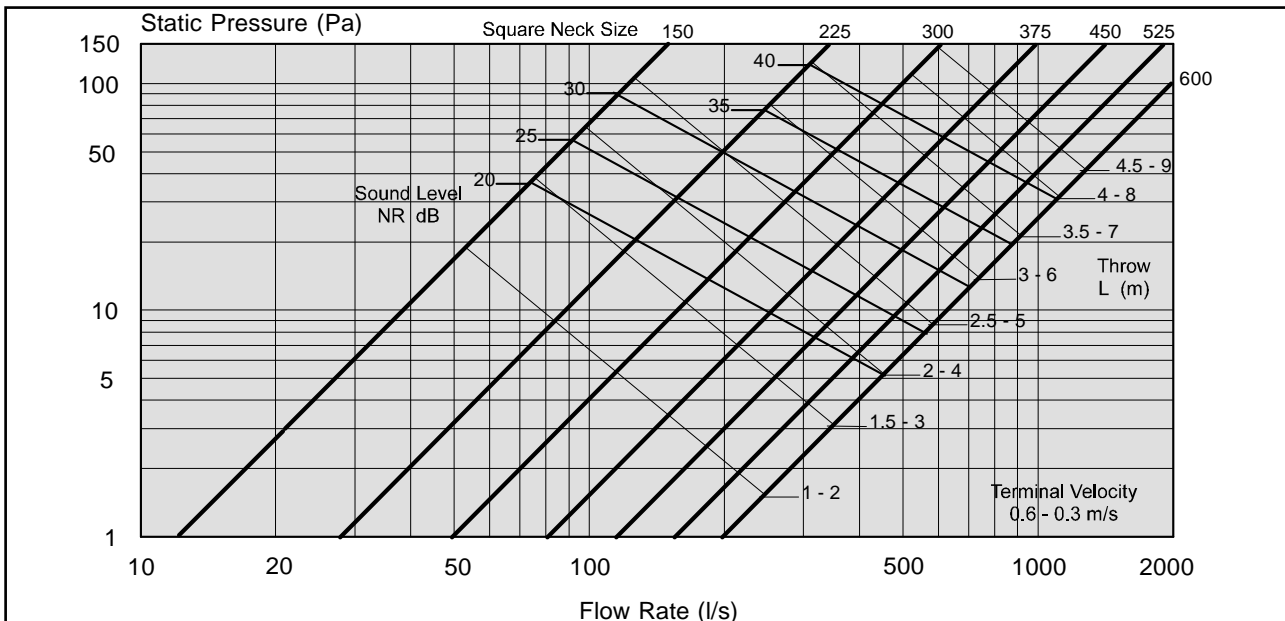
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

The following graphs apply to all Bradflo Directional Diffusers in sections 2.31 to 2.37.

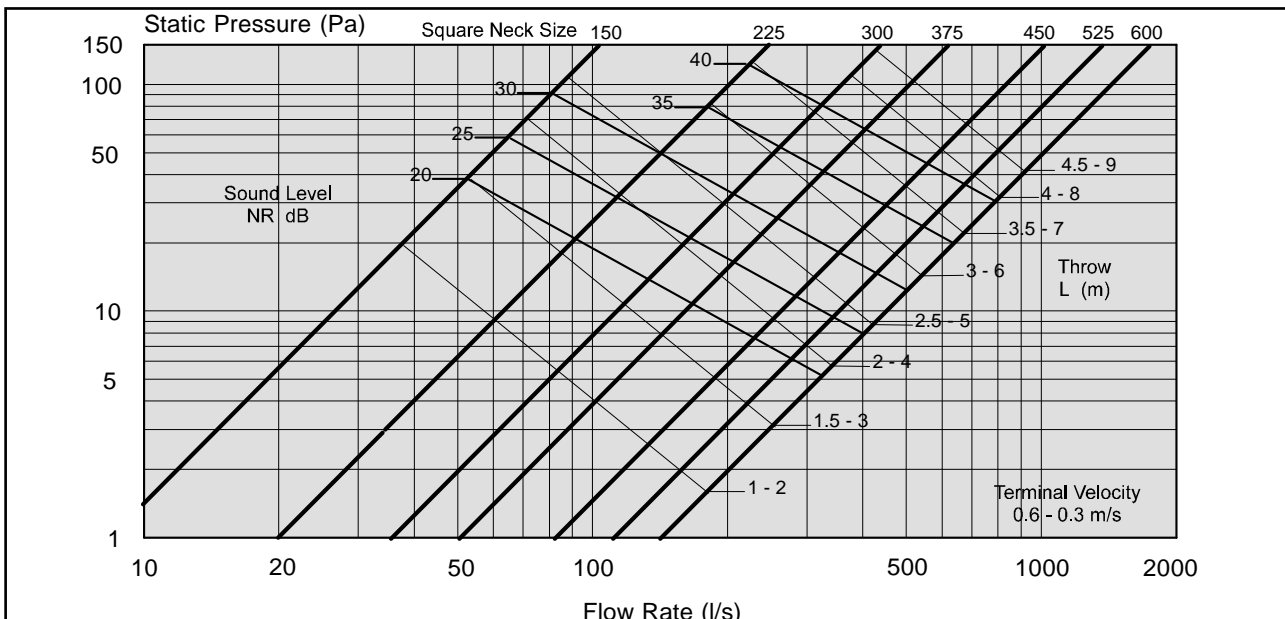
Terminal velocity	Approximate air velocity in room
0.60 m/s	0.30 m/s
0.30 m/s	0.15 m/s

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

4-way pattern (square)



4-way pattern (square) blanked to 3-way blow





DIRECTIONAL DIFFUSER

2.36

ACTL

Engineering Graphs

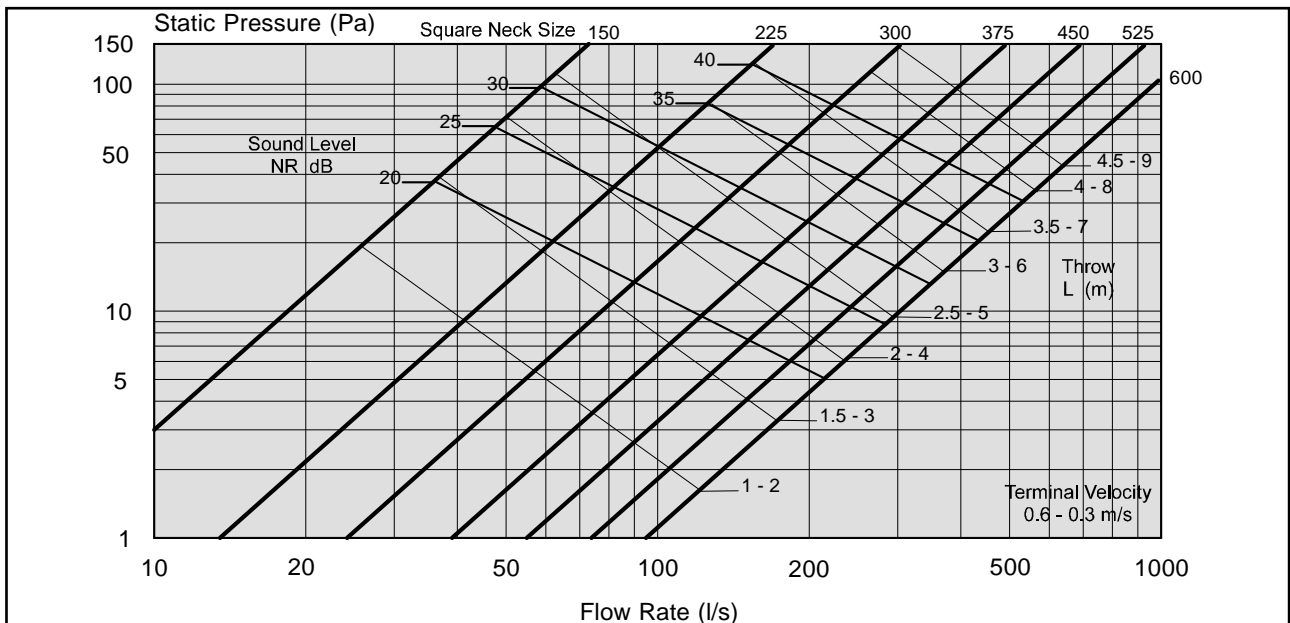
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

The following graphs apply to all Bradflo Directional Diffusers in sections 2.31 to 2.37.

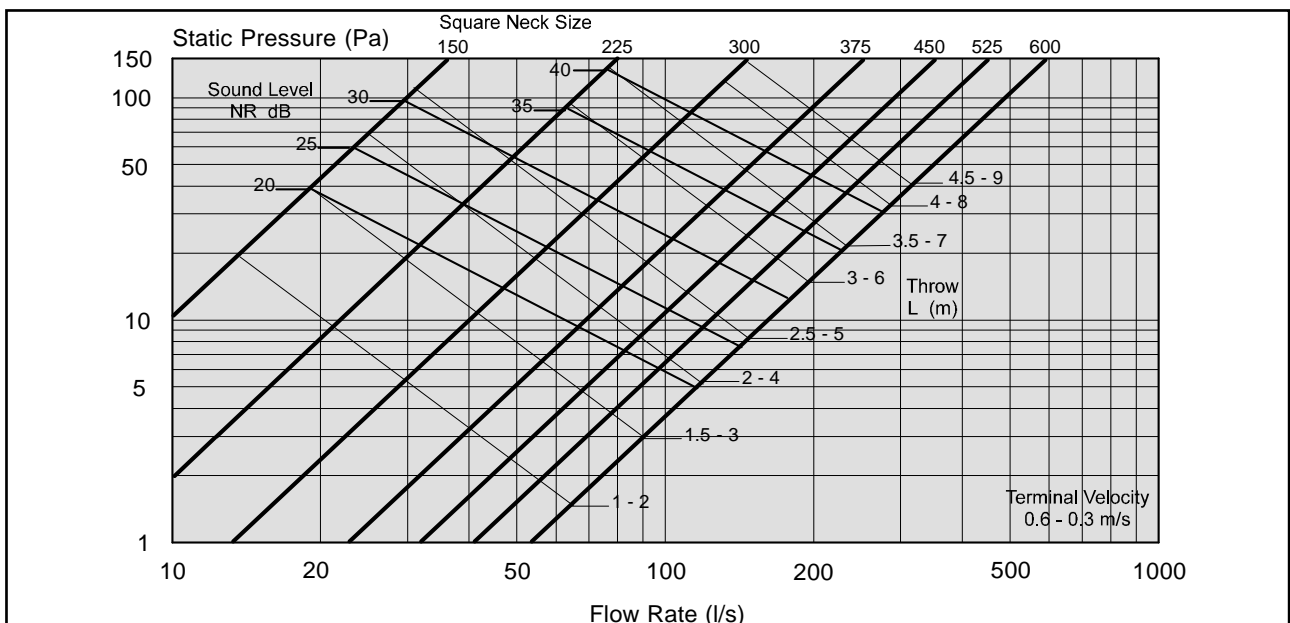
Terminal velocity	Approximate air velocity in room
0.60 m/s 0.30 m/s	0.30 m/s 0.15 m/s

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

4-way pattern (square) blanked to a 2-way blow



4-way pattern (square) blanked to a 1-way blow



2.36

ACTL

DIRECTIONAL DIFFUSER



Engineering Graphs

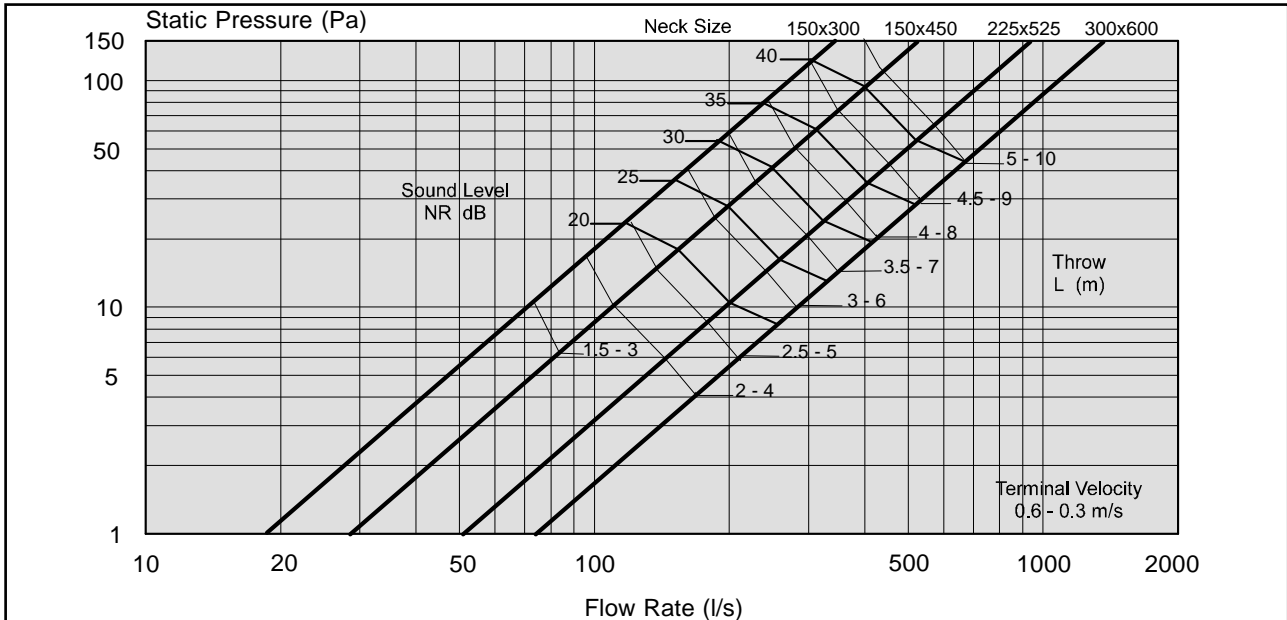
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

The following graphs apply to all Bradflo Directional Diffusers in sections 2.31 to 2.37.

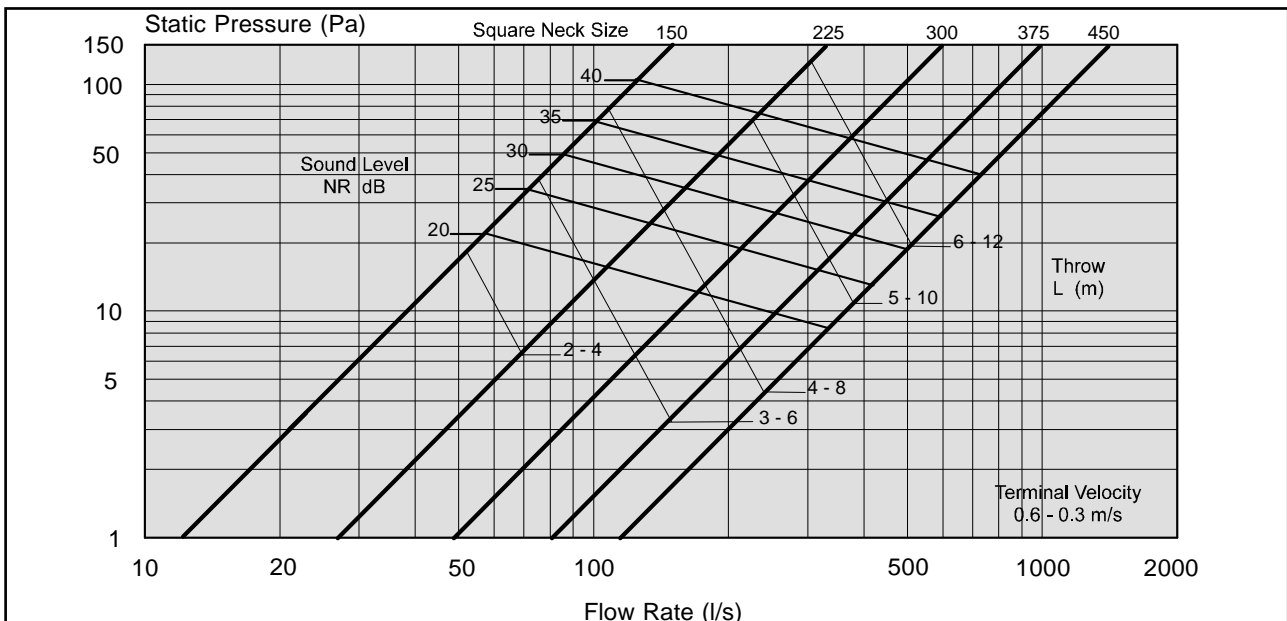
Terminal velocity	Approximate air velocity in room
0.60 m/s	0.30 m/s
0.30 m/s	0.15 m/s

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

4-way pattern (rectangular)



1-way pattern (square)





DIRECTIONAL DIFFUSER

2.36

ACTL

Engineering Graphs

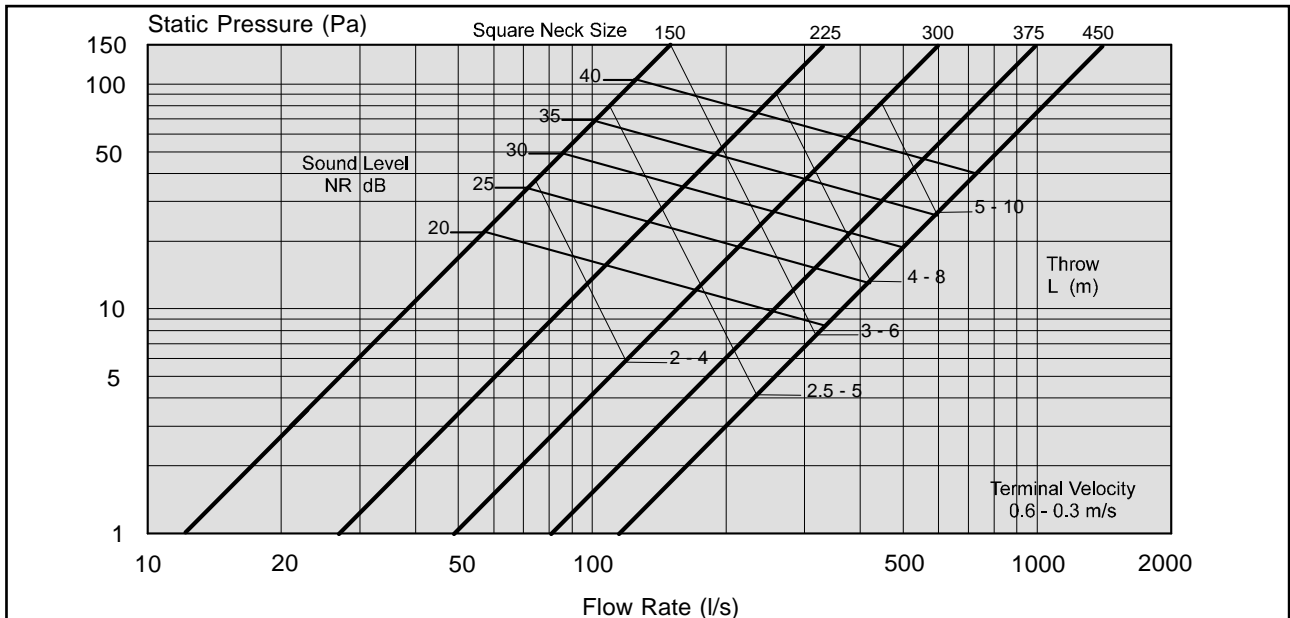
Throws shown are to a terminal velocity of 0.60 m/s and 0.30 m/s.

The following graphs apply to all Bradflo Directional Diffusers in sections 2.31 to 2.37.

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

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

2-way pattern (square)



3-way pattern (square)

