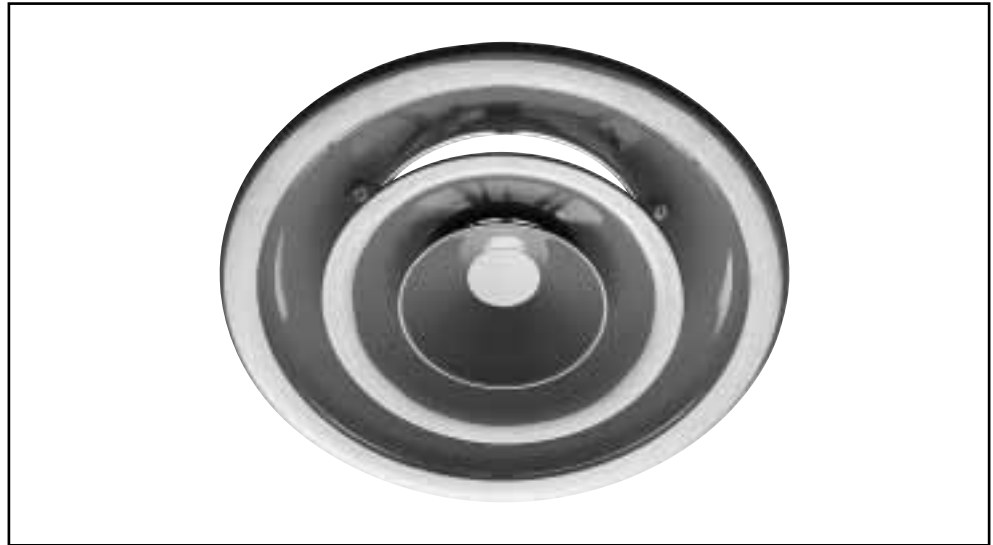




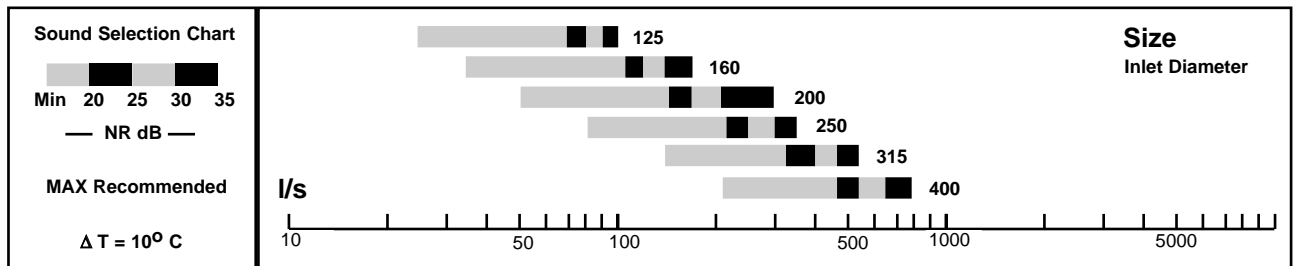
# CIRCULAR CONE DIFFUSER

# 2.42

## ACDRA



### Selection Guide



### Ordering procedure

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

**Type..X** (X is the nominal neck diameter of the diffuser).

Example: If your requirement is for a 200 mm diameter ceiling diffuser, the ordering code would be **ACDRA200** {When ordering it is not necessary to include the periods [..]}.

Product Size Numbers											
"Type"	"X" Size										Colour
ACDRA	125										Powder coat white
	160										
	200										
	250										
	315										
	400										
	500										Special colours

# 2.42

ACDRA

## CIRCULAR CONE DIFFUSER



### Description

The 2.42 (ACDRA) diffuser is an adjustable multiple cone diffuser which provides a horizontal and vertical pattern. The core of the diffuser is easily removed for fitting and cleaning.

The diffuser may be ceiling mounted or mounted in exposed duct work.

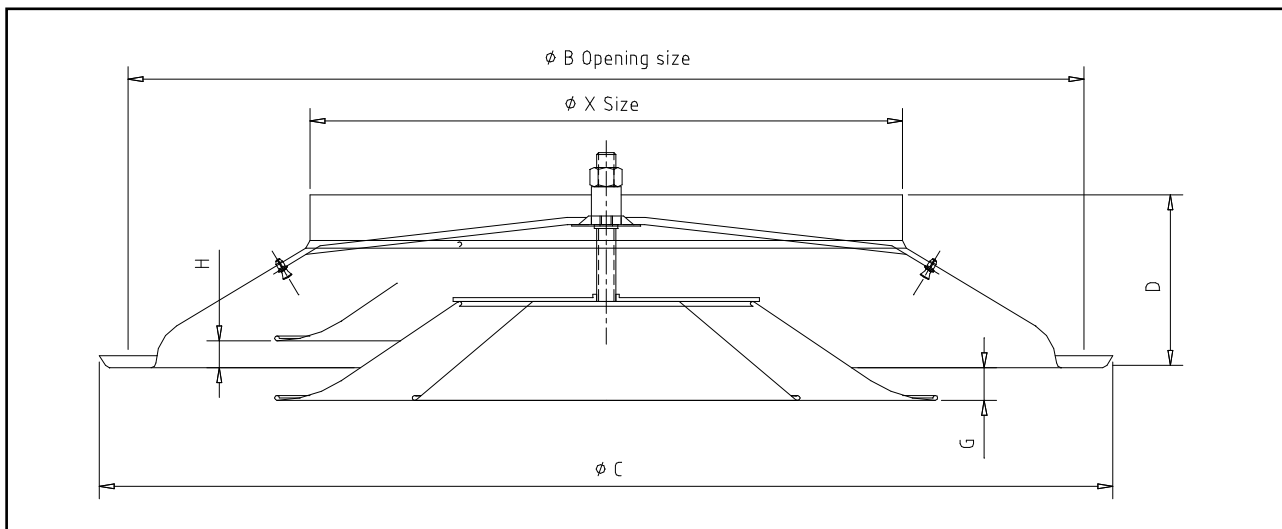
Standard construction is steel.

### Finish

Standard finish is white powder coated paint applied to a pre-treated surface and baked at 180° C to ensure a tough surface that resists damage, fading and discolouration.

Special colours are available. Contact your nearest Bradflo office with your requirements.

### Design dimensions



X Size	Dia. B	Dia. C	D	G	H
125	270	305	90	13	10
160	270	305	80	13	10
200	330	378	92	14	13
250	420	477	107	17	16
315	530	591	126	20	20
400	630	703	138	24	24
500	780	845	150	30	30

### 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
125	+14	+12	+11	+8	+4	-4	-8
160	+14	+16	+11	+8	+3	-5	-9
200	+15	+13	+11	+6	+2	-6	-8
250	+17	+16	+11	+6	+2	-8	-8
315	+15	+15	+12	-6	+1	-8	-8
400	+18	+16	+13	-6	+1	-7	-9
Tol +/-	2	2	2	2	2	2	2

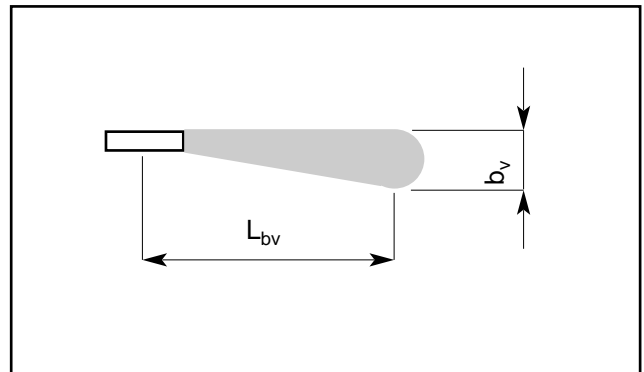
Correction factor  $K_{ok}$

### Air pattern

(with isothermal air supply)

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

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



### Sound absorption $\Delta L$ 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
125	16	12	7	2	0	0	0
160	14	10	5	1	0	0	0
200	13	9	4	0	0	0	0
250	11	7	3	0	0	0	0
315	10	6	2	0	0	0	0
400	9	5	1	0	0	0	0
Tol +/-	2	2	2	2	2	2	2

# 2.42

ACDRA

## CIRCULAR CONE DIFFUSER



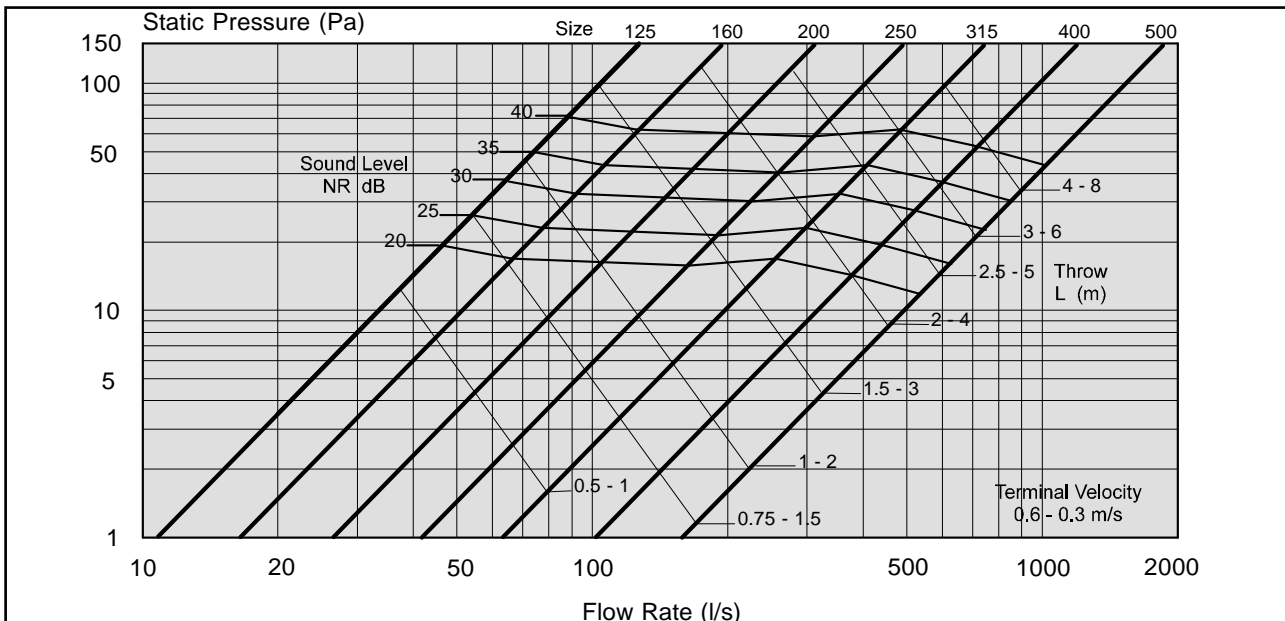
### Engineering Graphs

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

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

#### ARA Horizontal blow (dimension G)



#### ARA Vertical blow (dimension H)

