Rectangular Air Distribution Unit// Type ADU07

Classification:
Type ADU07 is for displacement ventilation. The armature has a rectangular duct connection.

The unit is fitted with diffusion nozzles which make it possible to change the geometry of the near zone. The unit is maintenance free and there is no risk of clogging.

Accessories:
Duct flashing and plinth.

Application:
For industrial use, laboratories, data-processing centres, assembly premises, offices etc.

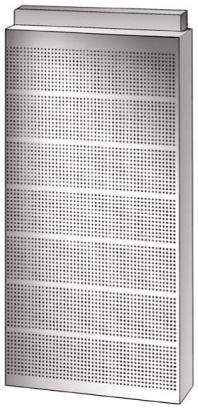
Materials:
Internal and external parts are manufactured from galvanised steel. Nozzles are made from black plastic and the face plate from 1.5mm galvanised steel.

Finishes:
Standard finish is RAL 9010 powder coat. Other colours are available on request.

Mounting:
- Floor mounting against wall.

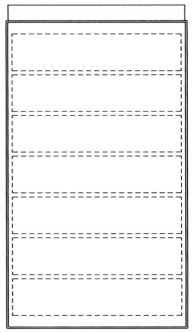
- Duct connection from above or below.

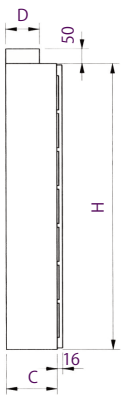
Type **ADU07**

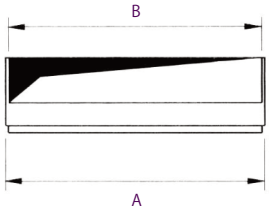


Type **ADU07**// Connection from the back

Dimensions

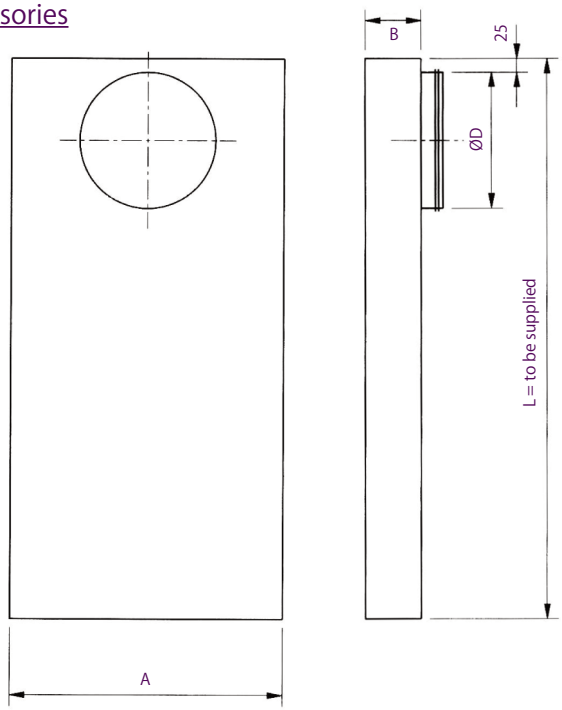






Displacement Units

Accessories



Dimensions

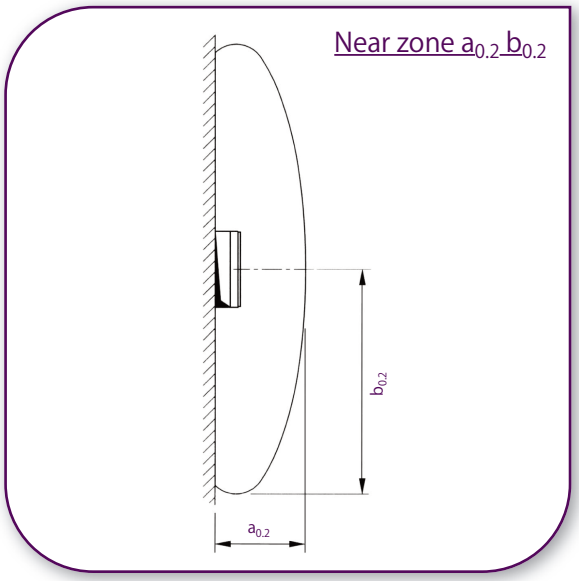
Size	A	B	D	H	U	Weight *kg*
3005	540	50	75	320	290	4.4
5005	540	50	75	450	420	5.8
6005	540	50	75	580	550	8.7
6008	540	50	105	580	550	9.0
8008	540	50	105	840	810	12.0

Table 1

Size	A	B	D1	Weight *kg/m*
3005	502	52	125	6.0
5005	502	52	160	6.0
6005	502	52	200	6.0
6008	502	82	250	6.5
8008	502	82	315	6.5

$a_{0.2}$ is the horizontal distance from the wall to where the maximum velocity has decreased to 0.2m/s.

$b_{0.2}$ is the horizontal distance from the centre of the unit parallel with the wall to where the maximum velocity has decreased to 0.2m/s.



Sound Level LA dB(A)

The sound level is specified at room damping of 4dB, corresponding to the damping in a room constant of 10 m^2 SABINE measured in the reverberation field.

Example of calculation:

Air flow: 100l/s (540m^3/h)

Size 6008 lies within the recommended field of application.

Near zone at -3K:

$a_{0.2}$ = 1.0m

$b_{0.2}$ = 3.2m

Pressure loss: Pt = 14Pa

Sound pressure level:

LA = 29 dB(A)

The distance to where the maximum velocity is 0.25 is:

a = 0.8 x 1.0 = 0.8m

b = 0.8 x 3.2 = 2.6m

Sound Power Level

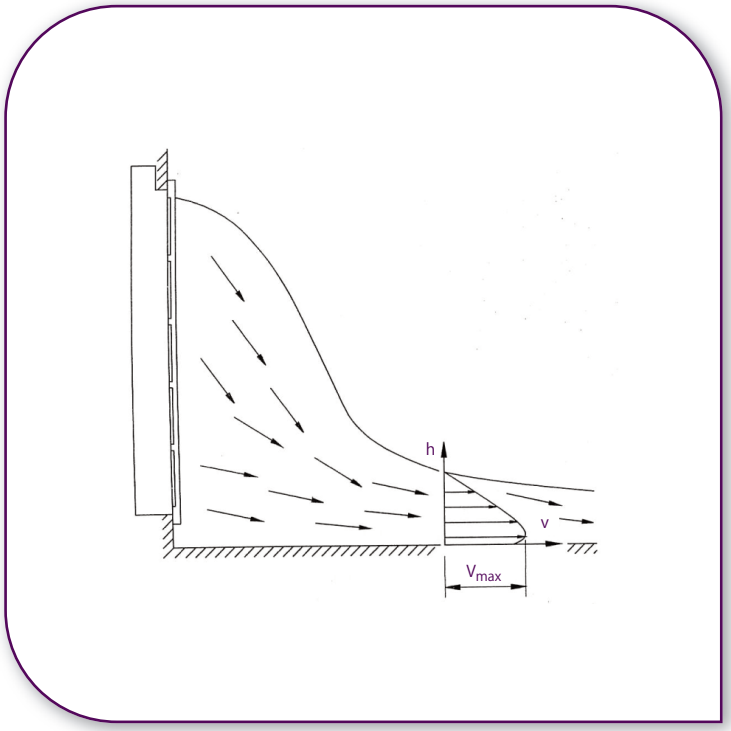
K_{OK}	Mean frequency Hz						
Size	125	250	500	1000	2000	4000	8000
3005	6	3	5	-1	-5	-10	-15
5005	5	7	4	-3	-13	-14	-17
6005	9	8	2	-1	-4	-9	-17
6008	7	7	4	-6	-14	-17	-19
8008	4	7	4	-6	-9	-16	-19

Sound power level LW (dB) = LA + K_{OK}

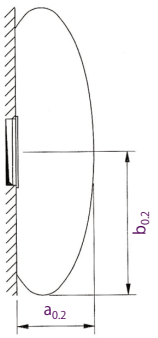
Sound Attenuation

Mean frequency Hz							
Size	125	250	500	1000	2000	4000	8000
3005	13	9	4	1	0	0	1
5005	11	8	2	2	1	0	0
6005	10	4	2	0	0	0	1
6008	8	3	2	0	0	0	0
8008	8	3	1	0	0	0	0

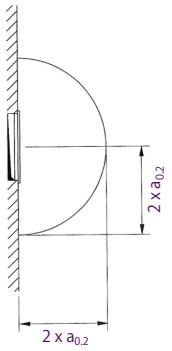
Sound attenuation L (dB) including and reflection

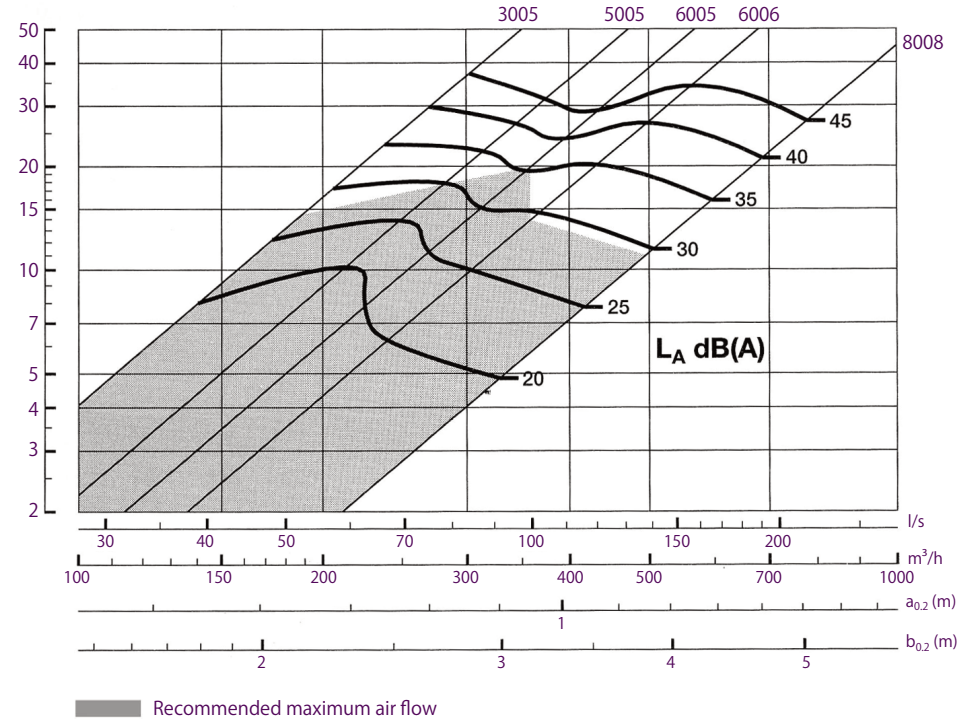


Large diffusion (factory setting)



Small diffusion





Pressure Loss Pt (Pa)

Correction of Near Zone ($a_{0.2}$, $b_{0.2}$)

Undertemperature Ti - Tr	-3 K					-6 K				
Maximum velocity (m/s)	0.20	0.25	0.30	0.35	0.40	0.20	0.25	0.30	0.35	0.40
Mean velocity (m/s)	0.10	0.12	0.15	0.17	0.20	0.10	0.12	0.15	0.17	0.20
Correction factor	1.0	0.8	0.7	0.6	0.5	1.2	1.0	0.8	0.7	0.6

Near zone measured at an undertemperature of -3K to a maximum terminal velocity of 0.20m/s.