

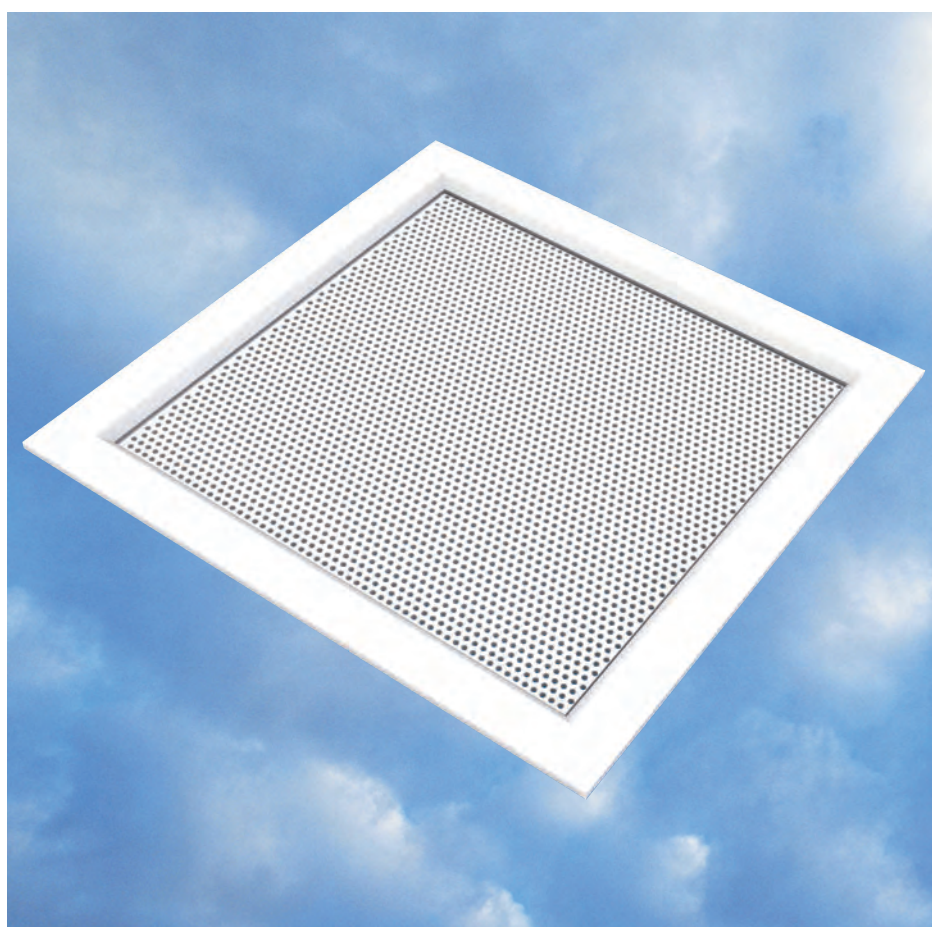
Anti-Ligature Grille

Model AL/35

Model AL/24

Features

- Cost effective
- Robust construction
- Supply and exhaust
- Complete plenum box range available
- Full range of accessories available



Air Diffusion

Grilles Diffusers Louvres Chilled Beams

Ruskin Air Management Limited
www.ruskinuk.co.uk

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Model AL/35, AL/24

Introduction

The Model AL Anti-Ligature grille has an inherent robust quality incorporated within its design and is supplied in two model types.

Model AL/35 is constructed around a robust core featuring a 3mm thick steel face plate having a perforated area formed from 3mm dia holes on 5mm staggered centres giving a free area of 32%. The core is then encapsulated within an aluminium frame assembly.

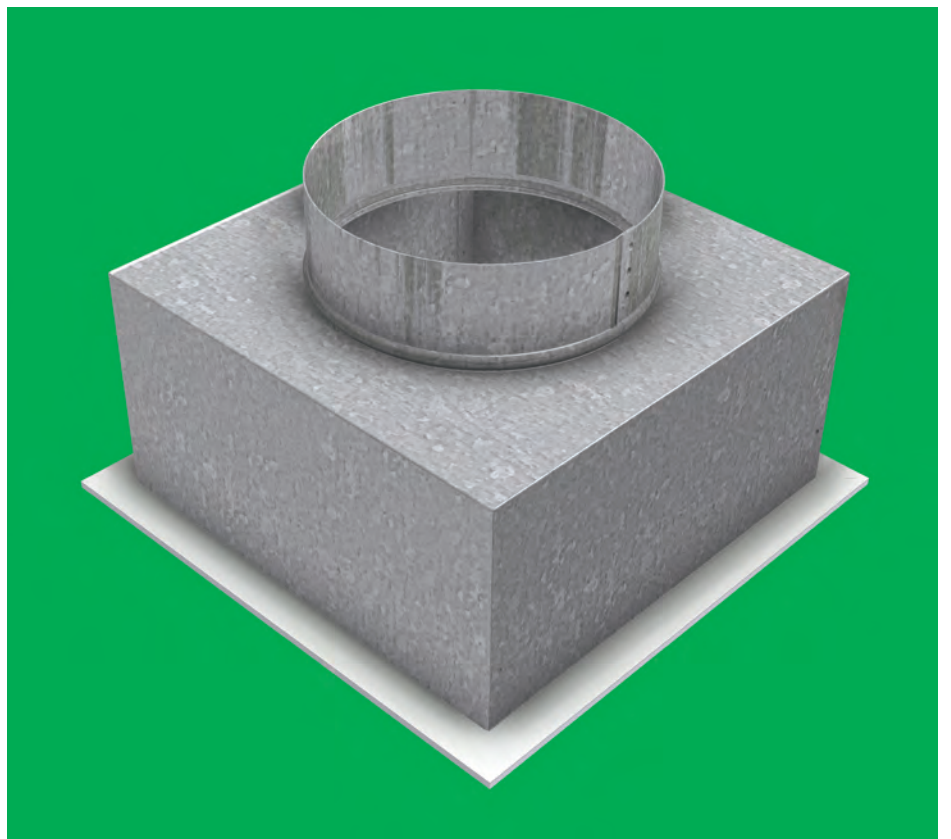
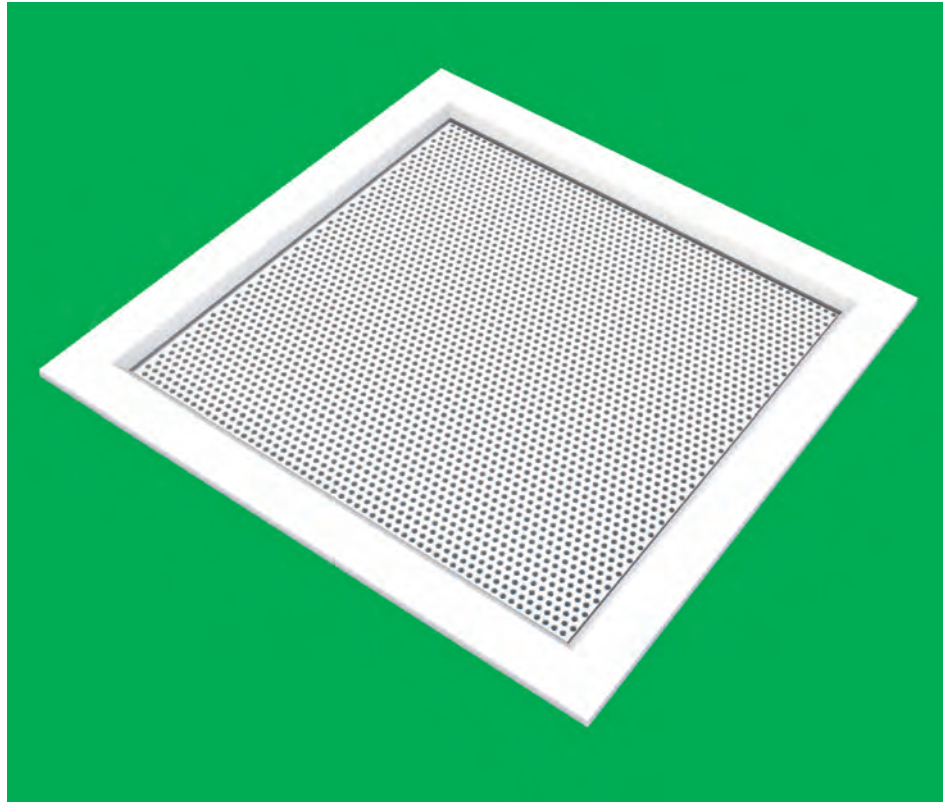
Model AL/24 is constructed as above but with a 2mm thick steel face plate having a perforated area, formed from 2mm dia holes on 4mm staggered centres giving a free area of 18%.

Standard finish: polyester powder coating RAL 9010, 20% gloss.

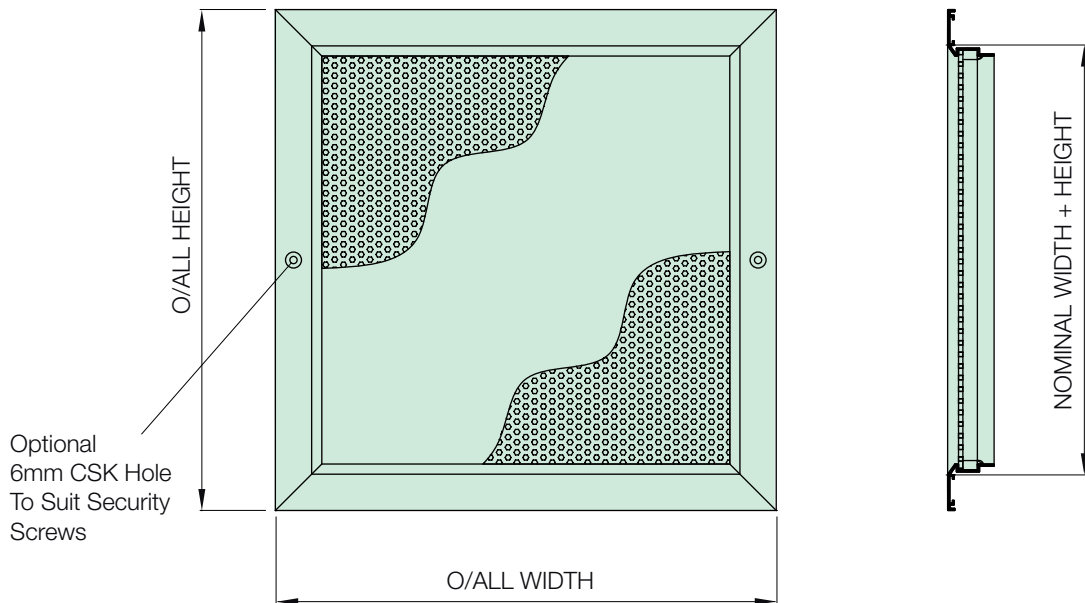
Factory fitted accessories include an opposed blade damper, intumescent fire block.

For alternative applications, the Model AL may be supplied as a front assembly only with countersunk holes in the flange with security screws (screws by others).

There are seven standard sizes available from a nominal size of 150 x 150 to 300 x 300mm, each size is normally supplied with a circular spigot connection, but can be supplied without the circular connection if required. Other sizes are available on request.

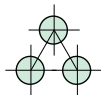


Dimensions



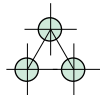
PERFORATIONS

AL 35



Ø3mm. on a
5mm. PITCH

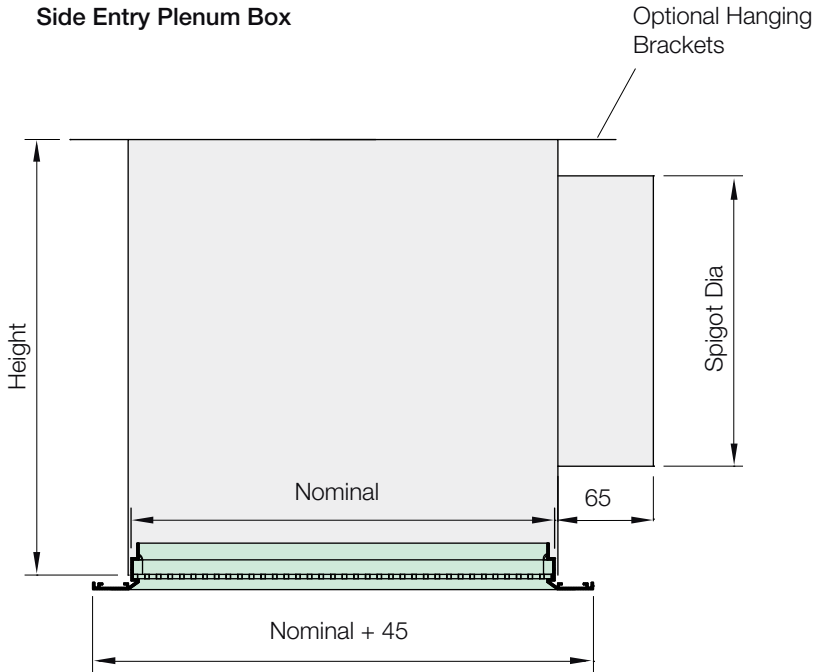
AL 24



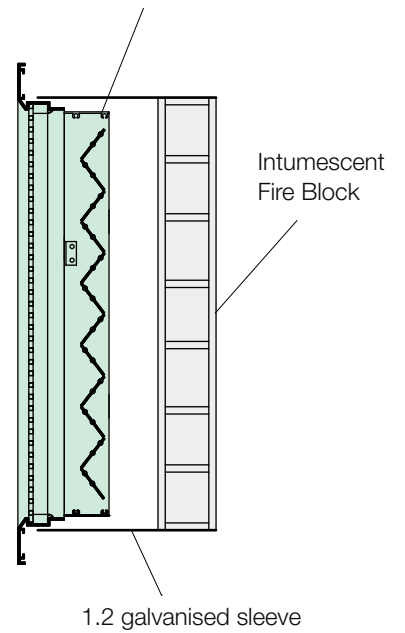
Ø2mm. on a
4mm. PITCH

Dimensions

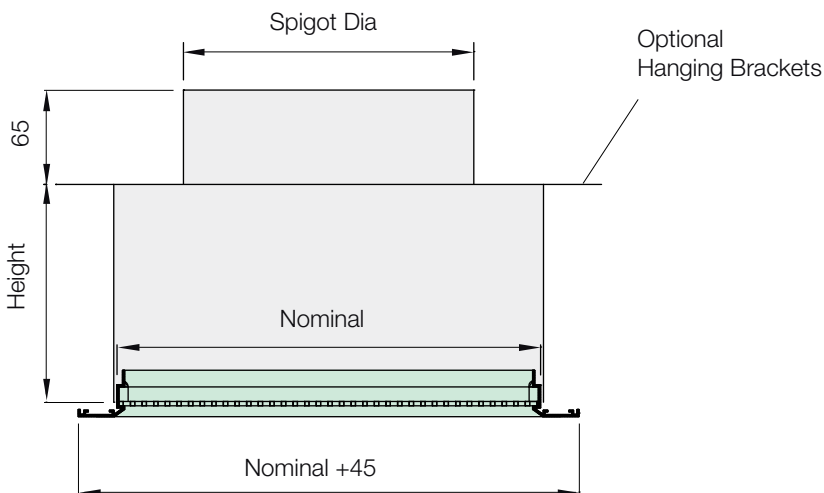
Side Entry Plenum Box



Opposed Blade Volume Control Damper Face Operated



Top Entry Plenum Box



Selection Data

Model AL/35 - 3mm holes on 5mm centres - Maximum Air Flow Rates, Complete Assembly, Plenum Box/Spigot

Nominal Grille Size	Nom Spigot Size									
150 x 150	125dia.	Air Volume (l/s)	10	17	20	30	35	40	45	50
		ThrowL _T (m)	1.2	2	3.3	4.1	4.4	4.5	5	5.3
		Pressure Drop - (Pa)	1.25	2.2	6	11.5	15	21	24	28
		Sound level - NR _{lW}	<10	<10	<15	20	22	24	26	28
200 x 150	125dia.	Air Volume (l/s)	15	20	35	45	50	60	70	80
		ThrowL _T (m)	1.5	2.5	4.4	5.2	5.5	6.0	6.4	7.0
		Pressure Drop - (Pa)	1	1.76	4.8	9.2	12	16.8	19.2	22.4
		Sound level - NR _{lW}	<10	<10	17	24	26	28	31	34
250 x 150	125dia.	Air Volume (l/s)	18	28	40	50	60	70	80	90
		ThrowL _T (m)	1.1	2.3	4.1	5.1	5.5	5.6	6.3	6.6
		Pressure Drop - (Pa)	0.8	1.6	4.0	6.1	9.0	13.0	15.0	17.7
		Sound level - NR _{lW}	<10	<10	16	22	24	27	29	33
200 x 200	160dia.	Air Volume (l/s)		30	40	55	65	75	85	95
		ThrowL _T (m)		2.0	2.6	3.5	4.0	4.7	5.4	5.8
		Pressure Drop - (Pa)		1.6	5.0	10.0	15.0	22.0	25.0	28.0
		Sound level - NR _{lW}		<10	17	26	28	31	35	38
250 x 200	160dia.	Air Volume (l/s)	25	40	50	60	75	90	100	110
		ThrowL _T (m)	0.8	2.0	2.5	3.0	4.0	4.7	5.4	5.8
		Pressure Drop - (Pa)	1.0	4.0	6.0	8.0	13.0	19.0	23.0	26.0
		Sound level - NR _{lW}	<15	<20	20.0	25.0	30.0	33.0	37.0	40.0
250 x 250	200dia.	Air Volume (l/s)	30	50	60	80	90	110	130	140
		ThrowL _T (m)	0.8	2.1	2.5	3.0	4.0	4.7	5.4	5.8
		Pressure Drop - (Pa)	1.0	2.5	4.0	6.0	8.0	13.0	18.0	24.0
		Sound level - NR _{lW}	<15	<20	19.0	23.0	26.0	30.0	36.0	42.0
300 x 300	250dia.	Air Volume (l/s)	45	70	90	110	135	160	180	200
		ThrowL _T (m)	2.6	4.0	5.0	6.0	8.0	8.5	11.0	>12
		Pressure Drop - (Pa)	1.2	3.0	4.0	7.6	12.0	15.0	22.0	30.0
		Sound level - NR _{lW}	19	22.0	19.0	23.0	35.0	37.0	40.0	>40

Model AL/24 - 2mm holes on 4mm centres - Maximum Air Flow Rates, Complete Assembly, Plenum Box/Spigot

Nominal Grille Size	Nom Spigot Size									
150 x 150	125dia.	Air Volume (l/s)	10	17	20	30	35	40	45	50
		ThrowL _T (m)	1.3	2.2	3.6	4.5	4.8	5.0	5.5	5.8
		Pressure Drop - (Pa)	1.5	2.7	7.3	14.0	17.1	23.9	27.4	31.9
		Sound level - NR _{lW}	<10	<10	<15	22	24.0	26.0	28.0	30.0
200 x 150	125dia.	Air Volume (l/s)	15	20	35	45	50	60	70	80
		ThrowL _T (m)	1.5	2.5	4.4	5.2	5.5	6.0	6.4	7.0
		Pressure Drop - (Pa)	1.1	2.0	5.5	10.5	12	16.8	19.2	22.4
		Sound level - NR _{lW}	<10	<10	19.0	26.0	28.0	30.0	33.0	36.0
250 x 150	125dia.	Air Volume (l/s)	18	28	40	50	60	70	80	90
		ThrowL _T (m)	1.2	2.5	4.5	5.6	7.4	7.5	8.4	8.9
		Pressure Drop - (Pa)	0.8	1.6	4.0	6.1	10.3	14.8	17.1	20.1
		Sound level - NR _{lW}	<10	<10	18.0	24.0	26.0	29.0	31.0	35.0
200 x 200	160dia.	Air Volume (l/s)		30	40	55	65	75	85	95
		ThrowL _T (m)		2.4	3.2	4.3	4.0	4.7	5.4	5.8
		Pressure Drop - (Pa)		1.8	5.7	11.4	15.0	22.0	25.0	28.0
		Sound level - NR _{lW}		<10	18.0	27.0	29.0	32.0	36.0	39.0
250 x 200	160dia.	Air Volume (l/s)	25	40	50	60	75	90	100	110
		ThrowL _T (m)	0.9	2.2	2.8	3.3	4.4	5.2	5.9	6.4
		Pressure Drop - (Pa)	1.0	4.0	6.0	8.0	18.1	26.4	32.0	36.2
		Sound level - NR _{lW}	<15	<20	21.0	26.0	31.0	34.0	38.0	41.0
250 x 250	200dia.	Air Volume (l/s)	30	50	60	80	90	110	130	140
		ThrowL _T (m)	0.9	2.3	2.8	3.3	4.4	5.2	5.9	6.4
		Pressure Drop - (Pa)	1.4	3.5	5.6	8.3	8.0	13.0	18.0	24.0
		Sound level - NR _{lW}	<15	<20	20.0	24.0	27.0	31.0	37.0	43.0
300 x 300	250dia.	Air Volume (l/s)	45	70	90	110	135	160	180	200
		ThrowL _T (m)	2.9	4.4	5.5	6.6	8.8	9.4	12.1	>13
		Pressure Drop - (Pa)	1.2	3.0	4.0	7.6	16.7	20.9	30.6	41.7
		Sound level - NR _{lW}	21.0	24.0	21.0	25.0	37.0	39.0	42.0	>43

The selection data is based on the following parameters:-

- Grille mounting height 2.8m.
 - Throw distances are based on isothermal conditions and a terminal velocity (V_t) of 0.5m/s.
 - No room absorption correction factors were considered for the acoustic results.
- For grille sizes greater than 300 x 300 please consult our sales office.

Ordering Information

Example

Model	Type	Plenum	Fixing	Accessory	Nominal Size (WxH)	Nominal Spigot Size	Finish
AL/35	G	1	0	1	250 x 250	200Ø	83

AL/35
AL/24

0 – Front Grille Only
1 – Plenum top entry
2 – Plenum side entry

Nominal Size (W x H)
150 x 150
200 x 150
250 x 150
200 x 200
250 x 200
250 x 250
300 x 300

Nominal Spigot Size
125 Ø
125 Ø
125 Ø
160 Ø
160 Ø
200 Ø
250 Ø

83 - White PPC to RAL 9010 (20% Gloss)
(Other finishes only available on Special Request)

(Standard Sizes shown, Other Sizes available on Request)

0 – No Front Fixing
1 – Countersunk Screw Holes

G – No OBD
R – With OBD

0 – No Accessories
1 – Face Operated Opposed Blade Damper Assembly
2 – Intumescent Fire Block (1 hour rating)

Important Note:

All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

**Ruskin Air Management Limited
is a BS EN ISO 9001 registered
company.**

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Due to a policy of continuous product development the specification and details contained herein are subject to alteration without prior notice.

**Comprehensive and detailed information
is available for all Air Diffusion products.
Visit our website at www.air-diffusion.co.uk**

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