

AIRFOIL

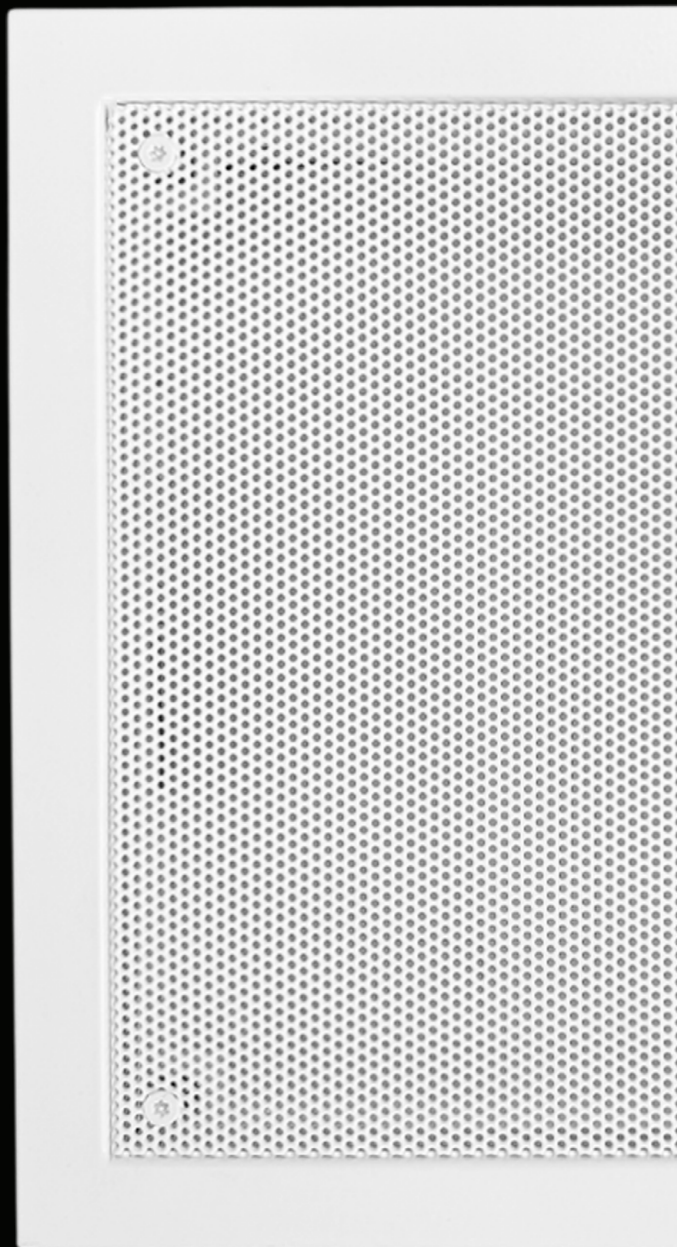


GRILLES
DUCT
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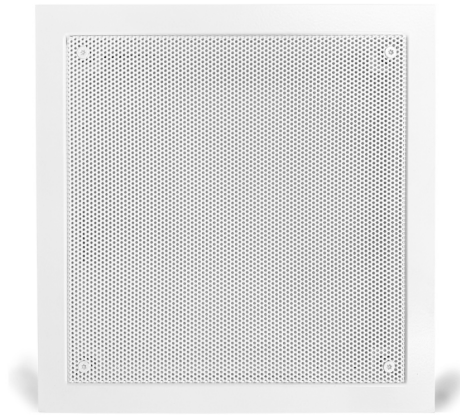
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**ANTI-LIGATURE
AIR GRILLE
AL-AG**



ANTI-LIGATURE AIR GRILLE AL-AG

PRODUCT DESCRIPTION AND APPLICATION

Airfoil's Anti-Ligature Air Grille (AL-AG) is Australian made and designed, manufactured from high-strength Australian steel. With a free area of approximately 46%, the AL-AG provides excellent performance for both supply and return air applications.

Airfoil's AL-AG is built to the highest standards, offering superior security in sensitive environments. Its robust perforated core sits within a 25mm outer frame, with a total grille depth of 50mm. The frame is folded from 1mm zinc anneal steel to ensure maximum durability and structural integrity.

The centre core is removable to assist with installation and ongoing maintenance. It is secured using anti-tamper Torx security screws, which are specifically designed to prevent any unauthorised removal or interference through the face of the grille.

Manufactured to custom sizes, the AL-AG is available in a standard white powder-coated finish, with the option to powder-coat in any specified colour upon request. The AL-AG is purpose-designed for use in high-risk environments including mental health wards, correctional facilities, secure psychiatric units, high-risk patient rooms, general hospitals, police stations, and other commercial or institutional settings where safety and security are critical.

“Anti-Ligature” Definition

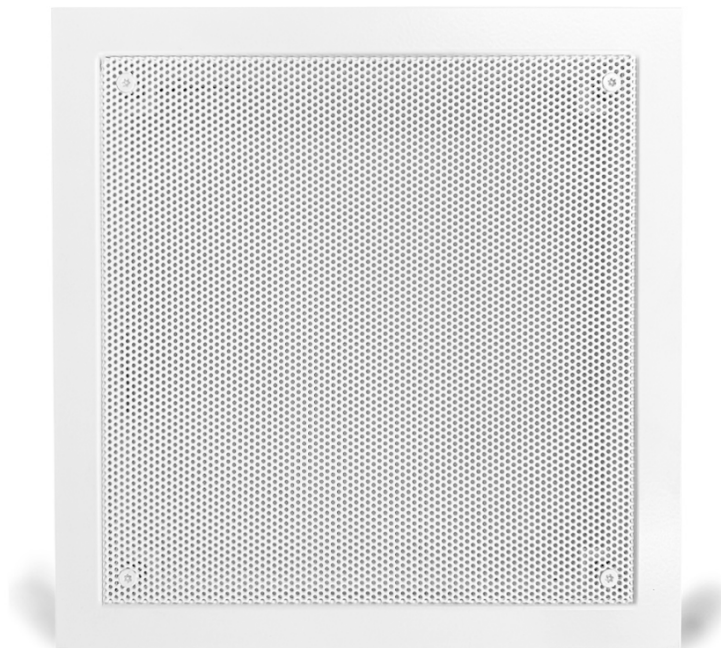
A ligature point is any fixture or surface that can support a person's weight or allow something to be tied around it. Anything that can accommodate a cord, rope, or shoelace poses a potential risk in environments where self-harm prevention is critical.

Anti-ligature refers to products specifically designed to eliminate or minimise these risks. They feature design elements that prevent the attachment of ligatures by removing anchor points, exposed fixings, or any geometry that could support loops, ties, or cords.

ANTI-LIGATURE AIR GRILLE AL-AG

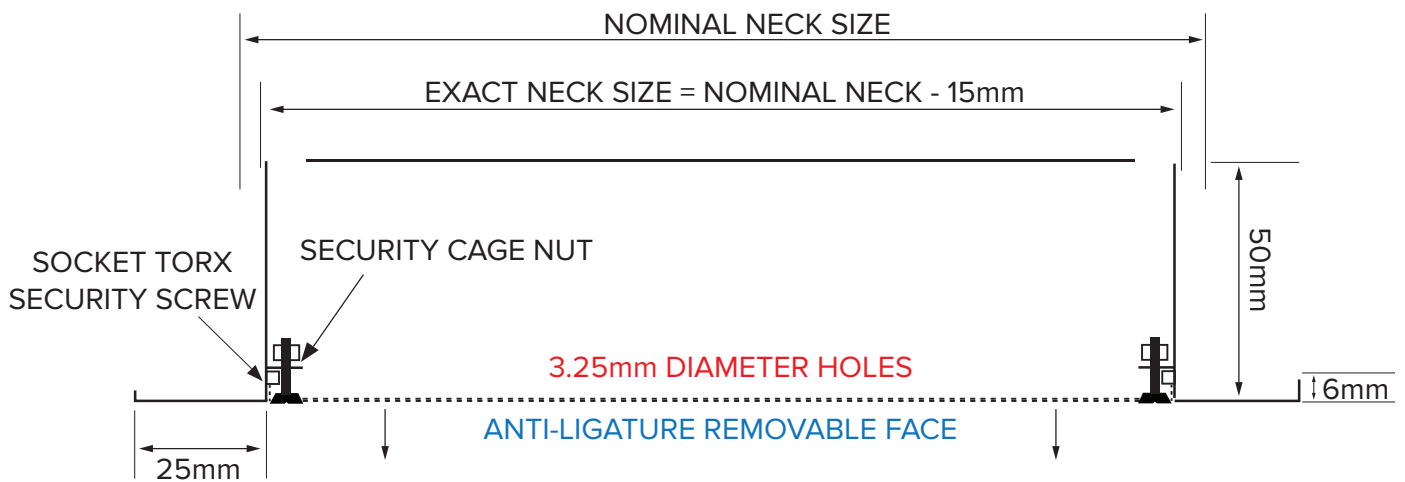
PRODUCT SPECIFICATIONS AND INFORMATION

- **Product ordering code – AL-AG**
- Australian Made and Designed
- High-strength steel construction for enhanced durability and impact resistance
- 1mm diameter zinc anneal folded frame for maximum strength
- 60° staggered perforation pattern with 3.25 mm holes at 4.52 mm pitch
- Provides approximately 46% free area
- Effective for use in both supply and return air applications
- Removable core for easy installation and maintenance
- 25mm wide outer frame sits 6mm proud of ceiling line
- 50mm deep frame
- Anti-Tamper Socket Torx Security Screws with accompanying star key for access
- Matching interlocking M5 metal cage nuts to suit security screws
- Designed to prevent unauthorised access or interference
- Manufactured to any size
- Comes standard in our white powder-coated finish
- Typically installed with our Insulated Cushion Box (ICB)
- Special powder-coated colours available upon request
- Suitable for use in high-risk settings such as mental health hospitals, prisons, correctional facilities, childcare centres, airports, general hospitals, police stations or any commercial application where security is paramount



ANTI-LIGATURE AIR GRILLE AL-AG

CROSS SECTIONAL DIAGRAM



DISCLAIMER:

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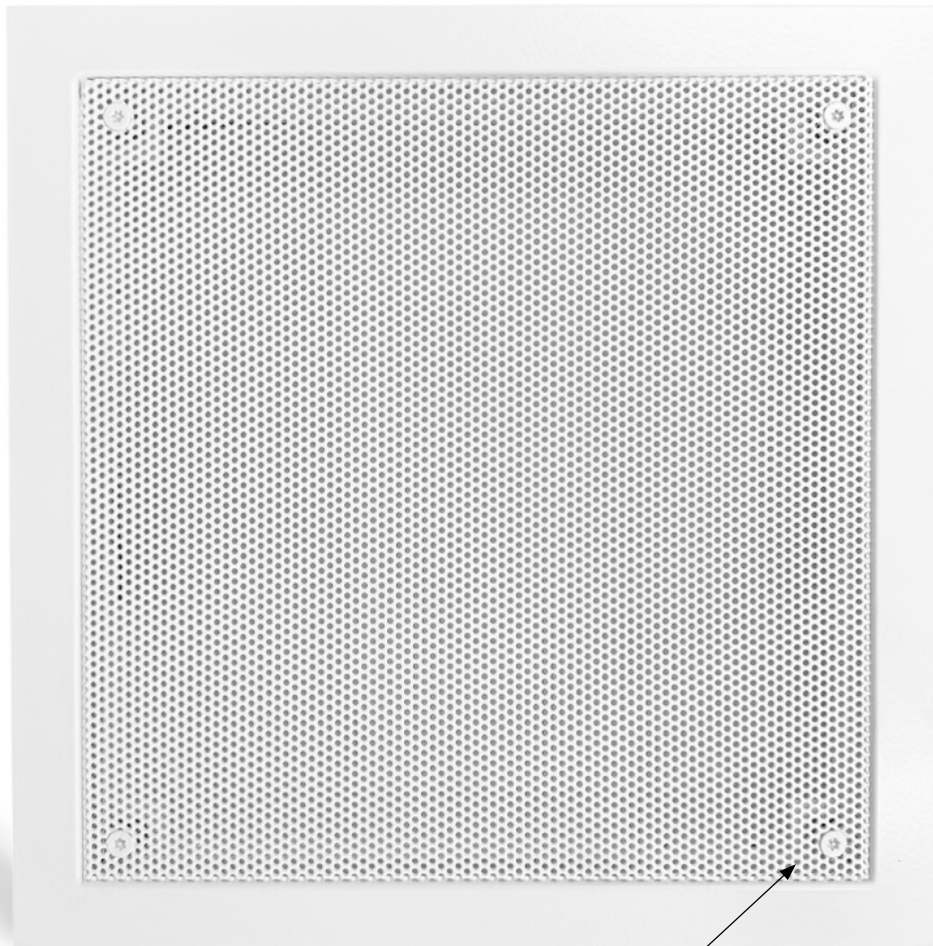
PERFORMANCE DATA

2MM PLATE 3.25MM PERFORATION AND 4.52MM PITCH WITH 46% FREE AREA

Nominal neck	Air Flow (L/S) ->	25	50	75	100	150	200	250	300	400	500	600	700	800
150x150	Neck Velocity (m/s)	0.65	1.3	1.95										
	Pressure drop (Pa.)	1	6	14										
200x200	Neck Velocity (m/s)	0.74	1.47	2.2	2.93	4.39								
	Pressure drop (Pa.)	2	7	17	30	67								
250x250	Neck Velocity (m/s)	0.46	0.91	1.36	1.82	2.72	3.63	4.53						
	Pressure drop (Pa.)	1	3	7	12	26	46	71						
300x300	Neck Velocity (m/s)	0.31	0.62	0.93	1.24	1.85	2.47	3.08	3.7	4.93				
	Pressure drop (Pa.)	0	1	3	6	12	22	33	48	84				
350x350	Neck Velocity (m/s)	0.23	0.45	0.67	0.9	1.34	1.79	2.23	2.68	3.57	4.46	5.35		
	Pressure drop (Pa.)	0	1	2	3	7	12	18	25	44	69	99		
400x400	Neck Velocity (m/s)	0.17	0.34	0.51	0.68	1.02	1.35	1.69	2.03	2.7	3.38	4.05	4.73	5.4
	Pressure drop (Pa.)	0	0	1	2	4	7	10	15	26	40	57	78	101
450x450	Neck Velocity (m/s)	0.14	0.27	0.4	0.53	0.8	1.06	1.33	1.59	2.12	2.65	3.18	3.7	4.23
	Pressure drop (Pa.)	0	0	1	1	3	4	7	9	16	25	35	48	62
500x500	Neck Velocity (m/s)	0.11	0.22	0.32	0.43	0.64	0.86	1.07	1.28	1.71	2.13	2.56	2.98	3.41
	Pressure drop (Pa.)	0	0	0	1	2	3	4	6	11	16	23	31	41
600x600	Neck Velocity (m/s)	0.08	0.15	0.22	0.3	0.44	0.59	0.74	0.88	1.17	1.47	1.76	2.05	2.34
	Pressure drop (Pa.)	0	0	0	0	1	2	2	3	5	8	11	15	19

Note: Values are based on theoretical Calculations. Actual values may differ. Not to be used for Commissioning purposes

ANTI-LIGATURE AIR GRILLE **AL-AG**



**Anti-Tamper Socket
Torx Security Screws**