# ACOUSTIC LOUVRES





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# **ABOUT VENTÜER**

# We provide engineered ventilation products for high performing building envelopes.

Ventüer is a leading provider of innovative ventilation products and systems. Since 2009, we have helped architects, builders and installation contractors by providing rigorously tested and certified natural and mechanical ventilation products and systems for a wide range of commercial construction projects.

Our ventilation, acoustic and smoke louvre systems are robustly engineered, building code-compliant, and widely used on major commercial projects to create healthy and comfortable indoor environments. We have built a reputation on the ability to use our products to engineer ventilation solutions in tricky environments where ordinary products would be risky and ineffectual.

The wider Ventüer product range includes; ventilation louvres, acoustic louvres, louvre windows, turbine ventilators, natural smoke ventilation, low-flow external grills and cowls, internal grills and diffusers, ducts and fittings.

We take the responsibility, the risk and the care.

You take the credit for the successful end result.

# AL-SERIES ACOUSTIC LOUVRES

Preventing noise pollution is key in today's high density environments. The Ventüer acoustic ventilation products help control and absorb building generated sound.

The Ventüer "AL" series is a suite of acoustic louvres that are fabricated from either aluminium, colorsteel or stainless steel and fitted with high density mineral wool sound absorption material. Unique to Ventüer, they include an optional tried and tested weather louvre profile to the exposed front face. This results in an acoustic louvre that not only has great pressure drop and acoustic performance, but also significantly reduces the amount of water that is blown through the louvres under storm conditions. There are four different models available, ranging from 100mm thick up to 600mm thick. The level of attenuation required and the space available in the building design will in most cases govern the model selection.

Independently tested at the Auckland University, each of the ALseries louvre has a full test report (to ISO 10140-2) available on demand. Pressure drop values are also available for assistance in determining the louvre size or mechanical plant requirements

Like traditional weather louvres, these acoustic louvres can be fitted with a wide range of ancillaries including solid blanking, insect or vermin mesh, volume control dampers or integral duct plenums.

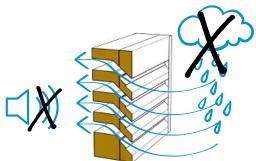


Fig. 1 - Ventüer acoustic louvres allow air to enter and exit the building whilst minimising the entry of wind driven rain and reducing the transmission of building generated noise.

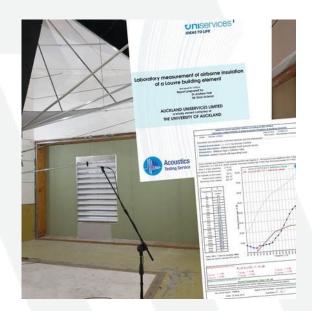


Fig. 2 - Ventüer louvres undergoing acoustic testing at Auckland University laboratory.

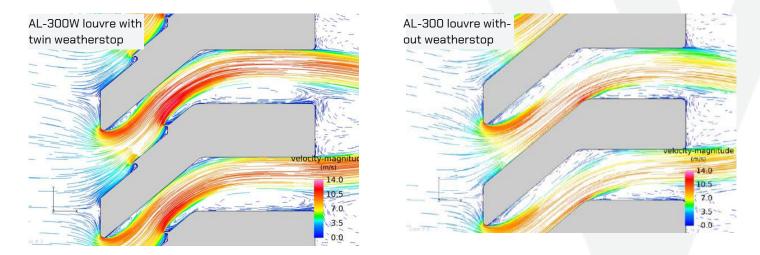


Fig. 3 - The AL-series of acoustic louvres can be manufactured with either a twin-weatherstop nosing profile (denoted with a "W" in the product code) or a flat nosing profile. The twin-weatherstop profile assists with preventing the ingress of wind driven rain but is more restrictive to air flow than the flat nosing profile. The images above show CFD modelling carried out during early design to demonstrate pressure drop differences.

# **RANGE OVERVIEW**



## **AL-600W**

- 600mm deep
- Maximum sound absorption •
- Excellent airflow performance
- Designed for enclosed plant rooms [Page 8]



## AL-600V

- 600mm deep
- Maximum sound absorption
- Double sided weather protection
- Designed for open-top plant enclosures [Page 9]



# **AL-450W**

- 450mm deep
- High sound absorption
- Excellent airflow performance ٠
- Designed for enclosed plant rooms [Page 10]



## AL-450V

**AL-300V** 

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300mm deep

Medium sound absorption

Double sided weather protection

Designed for open-top plant enclosures

- 450mm deep
- High sound absorption
- Double sided weather protection
- Designed for open-top plant enclosures [Page 11]

1		
-	-1	
	-1	
-		

# **AL-300W**

**AL-150W** 

• 150mm deep

Slimline design

Low pressure drop

Suitable for louvred doors

- 300mm deep
- Medium sound absorption
- Excellent airflow performance
- Designed for enclosed plant rooms [Page 12]



## **AL-100W**

- 100mm deep
- Slimeline design
- Low pressure drop
- Suitable for louvered doors

[Page 15]

[Page 13]



## AL-150WGB

- 150mm deep
- Continuous blade design
- Simple assembly
- Designed for open-top plant enclosures

[Page 18]

[Page 14]



## AL-500SGB

- 500mm deep
- Continuous blade design
- Simple assembly
- Designed for open-top plant enclosures

[Page 19]

PROJECT Burwood Hospital Boiler House

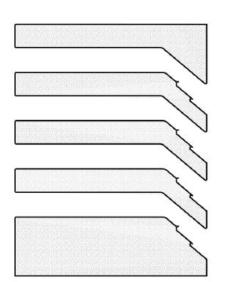
LOCATION Christchurch, NZ

PRODUCT AL-300 acoustic louvres



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# **AL-600W**

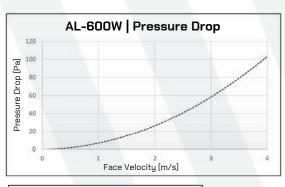
# **ULTIMATE ATTENUATION**

A high performing acoustic attenuator, the Ventüer AL-600W louvre system is 600mm deep and is designed for enclosed plantrooms where high level noise reduction is required.

Follow this QR code to find out more about the AL-600W louvre online, and to download the Ventüer Louvre Calculator for precise sizing and performance specification.



TECHNICAL DATA		
DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 600mm	
BLADE SPACINGS	i 150mm	
BASE MATERIAL	Aluminium	
ACOUSTIC INFILL	Mineral wool	
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish	
STC RATING	20	
TEST CERTIFICATION	ISO 10140-2	
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking	



Sound Reduction Index (SRI)	
Frequency f Hz	R One-third octave dB
50	7.4
63	6.1
80	4.7
100	4.3
125	6.5
160	6.1
200	7.1
250	7.3
315	8.5
400	12.4
500	15.3
630	19.4
800	24.8
1000	30.1
1250	35.6
1600	40.0
2000	42.7
2500	44.9
3150	45.2
4000	42.8
5000	39.1

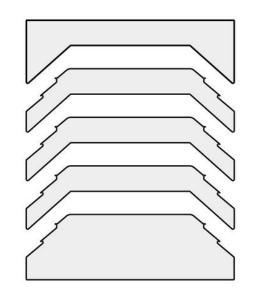
# AL-600V

# **ULTIMATE ATTENUATION**

The highest performing attenuator specifically designed for use in environments where both sides of the louvre are exposed to rain, the Ventüer AL-600V louvre system is 600mm deep and is ideal for acoustic plant screens where maximum noise reduction is required.



Follow this QR code to find out more about the AL-600V louvre online, and to download the Ventüer **Louvre Calculator** for precise sizing and performance specification.



		AL-600V	Pressur	e Drop	
	120				
a]	100				/
Pressure Drop (Pa)	80			/	/
re Dr	60				
Insse	40		-	and the second s	
đ	20				
	0				
	0	Face	2 Velocity (m/s)	3	4

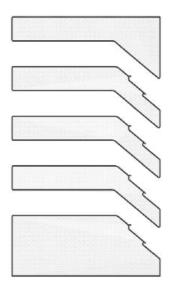
Sound Reduction Index (SRI)		
Frequency f Hz	R One-third octave dB	
50	9.8	
63	8.0	
80	7.0	
100	7.0	
125	6.5	
160	7.1	
200	8.2	
250	8.8	
315	9.8	
400	14.1	
500	17.9	
630	22.3	
800	28.2	
1000	33.2	
1250	35.5	
1600	38.6	
2000	41.4	
2500	44.3	
3150	44.8	
4000	45.2	
5000	43.6	

## **TECHNICAL DATA**

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DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 600mm
BLADE SPACINGS	150mm
BASE MATERIAL	Aluminium
ACOUSTIC INFILL	Mineral wool
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish
STC RATING	22
TEST CERTIFICATION	ISO 10140-2
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking

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# **AL-450W**

# **HIGH ATTENUATION**

The Ventüer AL-450W louvre system is a 450mm deep, high performing acoustic louvre ideal for enclosed plantroom installations where high levels of noise reduction and extra space is required.

Follow this QR code to find out more about the AL-450W louvre online, and to download the Ventüer **Louvre Calculator** for precise sizing and performance specification.



TECHNICAL DATA		
DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 450mm	
BLADE SPACINGS	150mm	
BASE MATERIAL	Aluminium	
ACOUSTIC INFILL	Mineral wool	
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish	
STC RATING	18	
TEST CERTIFICATION	ISO 10140-2	
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking	

		AL	-450W	Pressu	re Drop	
	120					
a	100					-/
Pressure Drop (Pa)	80					/
e Lr	60					
ssur	40					
a T	20					
	0		*****			
	0	)	1 Face \	velocity (m/s	3	-4

Sound Reduction	,,
Frequency f Hz	R One-third octave dB
50	7.7
63	6.2
80	4.8
100	4.6
125	5.1
160	5.3
200	5.8
250	6.4
315	7.2
400	9.9
500	12.4
630	15.5
800	19.9
1000	24.1
1250	28.4
1600	32.0
2000	34.4
2500	36.8
3150	37.4
4000	35.0
5000	32.0

Call NZ: +64 9 973 3616 Call AU: +61 3 8679 2206 Email: sales@ventuer.co Visit: www.ventuer.co

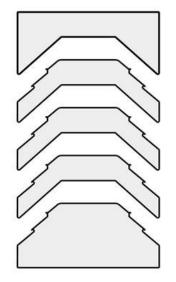
# AL-450V

# **HIGH ATTENUATION**

Specifically designed for use in environments where both sides of the louvre are exposed to rain, the Ventüer AL-450V louvre system is 450mm deep and is ideal for acoustic plant screens where high level noise reduction is required.



Follow this QR code to find out more about the AL-450V louvre online, and to download the Ventüer **Louvre Calculator** for precise sizing and performance specification.



A	AL-450V   Pre	essure [	Drop	
120				
100				1
80			/	<u></u>
60				
40			-	
20				
0	****			
0	Face Veloci	ity (m/s)	3	- 4
	120 100 80 60 40	120 100 80 60 40 20 0 0 1	120 100 80 60 40	

-	
Frequency f Hz	R One-third octave dB
50	9.1
63	7.7
80	8.1
100	7.4
125	5.4
160	5.7
200	6.5
250	7.8
315	8.4
400	11.5
500	14.4
630	17.5
800	21.7
1000	25.7
1250	28.0
1600	30.6
2000	32.7
2500	35.5
3150	36.6
4000	36.7
5000	36.6

## **TECHNICAL DATA**

DIMENSIONS	Height: min. 450mm, max.
	2400mm
	Length: min. 300mm, max.
	2400mm
	Depth: 450mm

BLADE SPACINGS 150mm

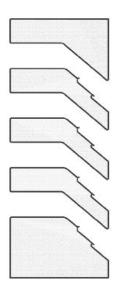
- BASE MATERIAL Aluminium
- ACOUSTIC INFILL Mineral wool
- SURFACE FINISHPowdercoatedOPTIONSAnodisedMill (raw) finish

19

TEST ISO 10140-2 CERTIFICATION

STC RATING

ANCILLARIES Vermin mesh Insect mesh Dust filters Solid blanking



# **AL-300W**

# **MEDIUM ATTENUATION**

At 300mm deep, the Ventüer AL-300W louvre system is a mid-range acoustic attenuator suitable for use in enclosed plantrooms where medium levels of noise reduction and extra spave is required.

Follow this QR code to find out more about the AL-300W louvre online, and to download the Ventüer Louvre Calculator for precise sizing and performance specification.



TECHNICAL DATA			
DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 300mm		
BLADE SPACINGS	150mm		
BASE MATERIAL	Aluminium		
ACOUSTIC INFILL	Mineral wool		
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish		
STC RATING	14		
TEST CERTIFICATION	ISO 10140-2		
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking		

	A	L-300W	Pressur	e Drop	
Pressure Drop (Pa)	140 120 100 80 60 40				/
Ľ	20 0 0	 I Face	2 Velocity (m/s)	3	4

-	
Frequency f Hz	R One-third octave dB
50	6.4
63	5.9
80	4.7
100	5.3
125	5.6
160	4.5
200	3.4
250	4.3
315	5.5
400	7.1
500	8.6
630	11.0
800	14.2
1000	17.1
1250	20.2
1600	22.8
2000	24.3
2500	36.1
3150	26.7
4000	25.5
5000	24.0

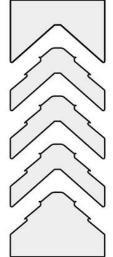
# **AL-300V**

# MEDIUM ATTENUATION

Specifically designed for use in environments where both sides of the louvre are exposed to rain, the Ventüer AL-300V louvre system is 300mm deep and is ideal for acoustic plant screens where medium noise reduction is required.



Follow this OR code to find out more about the AL-300V louvre online, and to download the Ventüer Louvre Calculator for precise sizing and performance specification.



ACOUSTIC LOUVRES

	AL-300V	Pressur	e Drop	
140				
m 120				
<u>ط</u> 100 —				/
Pressure Drop (Pa)			/	~
B 60		-	1	
SS 40			****	
20				
0				
0	1 Face	2 Velocity (m/s)	3	4

Sound Reduction Index (SRI)		
Frequency f Hz	R One-third octave dB	
50	9.3	
63	7.5	
80	7.7	
100	8.4	
125	6.7	
160	5.4	
200	5.1	
250	5.4	
315	6.8	
400	9.3	
500	10.9	
630	11.9	
800	13.2	
1000	14.7	
1250	16.7	
1600	20.3	
2000	21.1	
2500	21.3	
3150	21.3	
4000	21.0	
5000	20.0	

## **TECHNICAL DATA**

DIMENSIONS	Height: min. 450mm, max.
	2400mm
	Length: min. 300mm, max.
	2400mm
	Depth: 300mm

**BLADE SPACINGS** 150mm

- BASE MATERIAL Aluminium
- ACOUSTIC INFILL Mineral wool
- SURFACE FINISH Powdercoated OPTIONS Anodised Mill (raw) finish

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TEST ISO 10140-2 CERTIFICATION

STC RATING

ANCILLARIES Vermin mesh Insect mesh Dust filters Solid blanking

# JIIIII

# **AL-150W**

# SLIMLINE ACOUSTIC

The Ventüer AL-150W louvre system is a 150mm deep slimline acoustic attenuator ideal for situations where space is restricted and high levels of sound absorption are not required.

Follow this QR code to find out more about the AL-150W louvre online, and to download the Ventüer **Louvre Calculator** for precise sizing and performance specification.



TECHNICAL DATA			
DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 150mm		
BLADE SPACINGS			
BASE MATERIAL	Aluminium		
ACOUSTIC INFILL	Mineral wool		
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish		
STC RATING	9		
TEST CERTIFICATION	ISO 10140-2		
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking		

	A	L-150W	Pressur	e Drop	
	200				
	180				/
g	160				/
rressure urop (raj	140				/
ĕ	120			/	
ב	100			1	
Š	80			1	
ກິ	60			·	
Ē	40		and a start of the		
	20		****		
	0				
	0	1	2	3	4
		Face \	/elocity (m/s)		

Frequency f Hz	R One-third octave dB
50	8.6
63	6.1
80	6.1
100	7.0
125	6.1
160	4.8
200	4.1
250	3.8
315	3.6
400	4.6
500	5.8
630	7.0
800	7.9
1000	9.0
1250	10.0
1600	11.2
2000	12.2
2500	12.8
3150	12.8
4000	12.0
5000	11.7

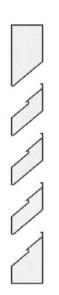
# **AL-100W**

# **SLIMLINE ACOUSTIC**

The Ventüer AL-100W louvre system is a 100mm deep slimline acoustic attenuator ideal for situations where space is restricted and high levels of sound absorption are not required.



Follow this OR code to find out more about the AL-100W louvre online, and to download the Ventüer Louvre Calculator for precise sizing and performance specification.



ACOUSTIC LOUVRES

		AL-100W	Pressure	e Drop	
	200				
	180				- /
ອີ	160				/
Ē	140				/
Pressure Drop (Pa)	120			/	
	100			1	
n	80			11 - C	
SSS	60			-	
F.	40		and a start of the		
	20		****		
	0	************	_		
	0	1	2	3	4
		Face	/elocity (m/s)		

Sound Reduction	on Index (SRI)
Frequency f Hz	R One-third octave dB
50	5.8
63	5.1
80	6.5
100	5.6
125	5.9
160	4.8
200	3.7
250	3.2
315	3.3
400	3.3
500	3.5
630	4.7
800	5.9
1000	7.0
1250	8.2
1600	9.3
2000	9.8
2500	10.6
3150	10.6
4000	10.4
5000	10.3

## **TECHNICAL DATA**

DIMENSIONS	Height: min. 450mm, max. 2400mm Length: min. 300mm, max. 2400mm Depth: 100mm
BLADE SPACINGS	150mm
BASE MATERIAL	Aluminium
ACOUSTIC INFILL	Mineral wool
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish
STC RATING	7
TEST CERTIFICATION	ISO 10140-2
ANCILLARIES	Vermin mesh Insect mesh Dust filters

Solid blanking

## PROJECT

Auckland City Mission 'HomeGround'

LOCATION Auckland, NZ

## PRODUCT

41

AL-300 acoustic louvres



# 0000000000000

# AL-150WGB

# **SOUNDWALL - SHALLOW**

The Great Barrier AL-150WGB kitset blade and stauncion system offers continuous lengths up to 6.5m without joins for un-interrupted aesthetic and simple on site assembly. Ideal for situations where space is restricted and high levels of sound absorption are not required.

Follow this QR code to find out more about the AL-150WGB louvre online, and to download the Ventüer **Louvre Calculator** for precise sizing and performance specification.



TECHNICAL DATA	
DIMENSIONS	Height: min. 300mm, no max Length: min. 300mm, no max Depth: 150mm (blade only)
BLADE SPACINGS	150mm
BASE MATERIAL	Aluminium
ACOUSTIC INFILL	Mineral wool
SURFACE FINISH OPTIONS	Powdercoated Anodised Mill (raw) finish
STC RATING	9
TEST CERTIFICATION	ISO 10140-2
ANCILLARIES	Vermin mesh Insect mesh Dust filters Solid blanking

Sound Reduction Index (SRI)			
Frequency f Hz	R One-third octave dB		
50	8.6		
63 80	6.1 6.1		
12.2			
100	7.0		
125	6.1		
160	4.8		
200	4.1		
250	3.8		
315	3.6		
400	4.6		
500	5.8		
630	7.0		
800	7.9		
1000	9.0		
1250	10.0		
1600	11.2		
2000	12.2		
2500	12.8		
3150	12.8		
4000	12.0		
5000	11.7		

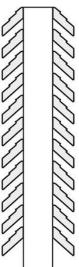
# AL-500SGB

# **SOUNDWALL - DEEP**

The Great Barrier AL-500SGB kitset blade and stauncion system offers continuous lengths up to 6.5m without joins for un-interrupted aesthetics and simple on site assembly. Ideal for situations where medium to high noise reduction is required.



Follow this QR code to find out more about the AL-500SGB louvre online, and to download the Ventüer Louvre Calculator for precise sizing and performance specification.



ACOUSTIC LOUVRES



## **TECHNICAL DATA**

## DIMENSIONS

Height: min. 300mm, no max. Length: min. 300mm, no max. Depth: 500mm. (Blade and standard stanchion).

### **BLADE SPACINGS** 150mm

- BASE MATERIAL Aluminium
- ACOUSTIC INFILL Mineral wool
- SURFACE FINISH Powdercoated OPTIONS Anodised Mill (raw) finish

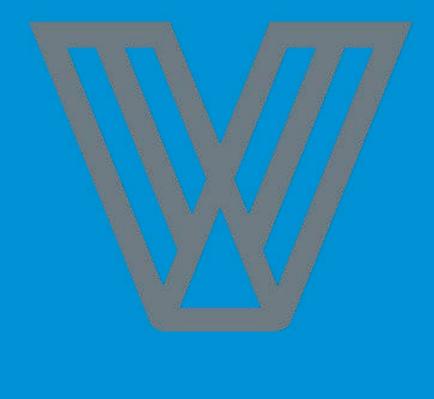
17

TEST ISO 10140-2 CERTIFICATION

STC RATING

ANCILLARIES Vermin mesh Insect mesh Dust filters Solid blanking

Frequency f Hz	R One-third octave dB
50	10.1
63 80	6.2 6.6
100	7.7
125	6.9
160	7.0
200	7.2
250	7.8
315	8.0
400	10.6
500	12.3
630	13.7
800	14.8
1000	17.0
1250	19.1
1600	20.3
2000	23.1
2500	24.3
3150	24.3
4000	22.4
5000	21.8







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