



element control
systems

commercial louvres,
solar shading, ventilation
& fire protection

SILENT SCREEN ACOUSTIC LOUVRE SYSTEM

Commercial Louvres | Solar Shading | Design Consultancy | Sales & Installation | Natural Ventilation

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APPLICATIONS

The ECS Silent Screen Acoustic Louvre systems are designed primarily for both sound - attenuation purposes whilst also providing good protection against the ingress of water. Vermin proof mesh is normally fixed to the rear of the system to prevent birds and other

small animals from entering. These types of screening louvres are used commonly to provide for air intakes and exhaust outlet to reduce mechanical plant noise whilst allowing air movement against minimal pressure loss.

AESTHETIC AND ARCHITECTURAL APPEARANCE

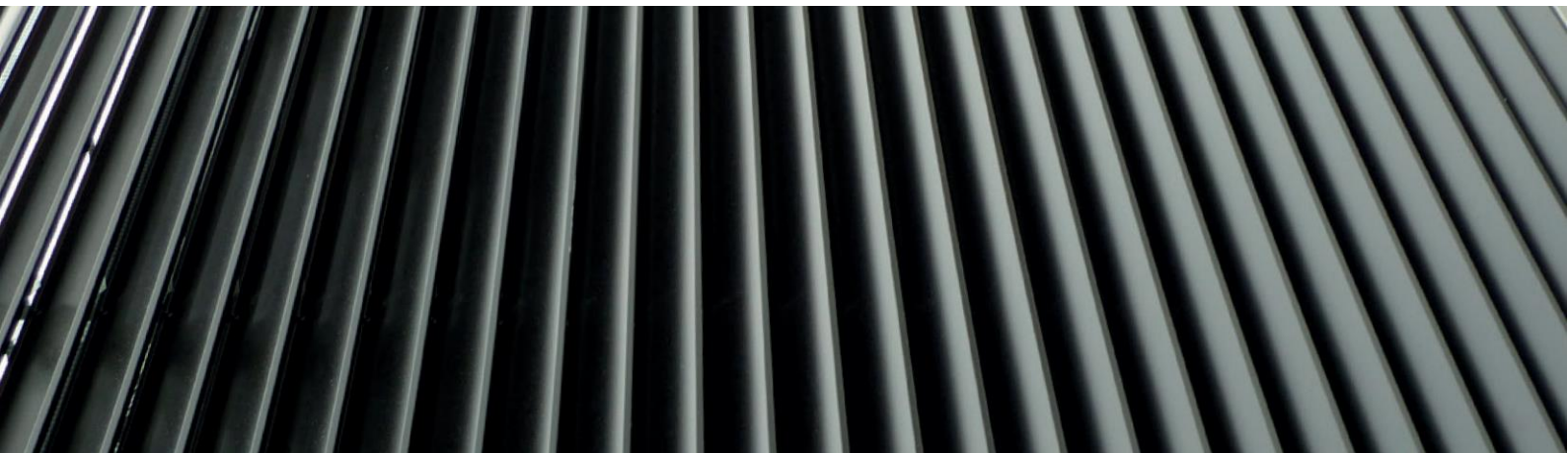
A choice of colorbond, aluminium or zincalume finish is available. Supported and connected by internal structural cleats, the Element Control Systems Silent Screen Acoustic louvres are installed in individual panels with an approx. maximum dimensions

of 2200mm wide x 2500mm high. When these measurements are exceeded the louvres are supplied in sections for joining together on site complete with cover strips with the same finish.

ECONOMIC

Cost savings result from the ability to meet exact requirements with versatile standard components. The unique design and state of the art engineered machinery enable the louvre system to be manufactured in

precise dimensions to suit individual needs. This benefit enable us to provided faster turn around times and cost reductions with on site installation.



OPTIONAL ACCESSORIES

Bird, vermin guards, insect mesh, flashings and trims are also available on request.

MATERIAL FINISHES

Powder - coated / anodized.

There are three louvres within the range to cater for a large range of acoustic requirements:

Model SS150	Single pass medium performance half chevron louvre
Model SS300	Single pass medium performance half chevron louvre
Model SS600	Double pass High performance full chevron louvre

PRINCIPLE OF OPERATION

Acoustic Louvres are typically used as both a technical requirement to reduce sound levels from plant rooms and machinery but also offering an attractive aesthetic finish to match in with the surrounding construction.

The Silent Screen System allows air flow through ventilation openings whilst reducing the radiation of noise through a sound

baffle design. The horizontal blades are manufactured from various perforated metal products which in case the acoustic grade glass fibre which is the principle sound absorbing mechanism. The perforated metal whilst supporting to reduce the noise level also protects the glass fibre from erosion by the airflow.



PERFORMANCE DATA

The Silent Screen Louvre system is manufactured to meet the requirements of Australian Standards AS 1191 AS/NZS ISO717-1 / ASHRAE70 With respect to: Acoustic Performance and air flow /pressure measurements.

TYPICAL SPECIFICATION

Louvres shall be Element Control Systems Silent Screen Acoustic louvre system Model SS/ ... Manufactured from folded, colorbond, aluminium, zinalume. Finish can also be applied via powder coating or anodizing etc.

The louvres shall be supplied in assembled panels constructed to provide structural rigidity and ensure adequate blade support across the full louvre length. The louvre system depth shall be 150mm/300mm/600mm.

WEIGHTS

Approx weights per M2 are as follows:

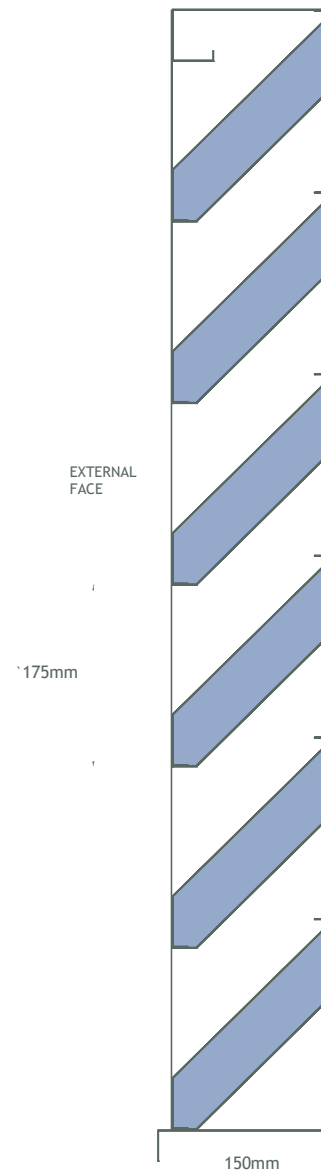
Model SS150	Zinalume / Colorbond	30 Kg/M2
Model SS300	Zinalume / Colorbond	45Kg/M2
Model SS600	Zinalume / Colorbond	90Kg/M2

ACOUSTIC WEATHER LOUVRE SYSTEM SS150 FREE AREA = 53%

No of Intermediate Blades (SS150)

3	555
4	730
5	905
6	1080
7	1255
8	1430
9	1605
10	1780
11	1955
12	2130
13	2305
14	2480
15	2655
16	2830
17	3005

Standard Louvre Height (SS150)

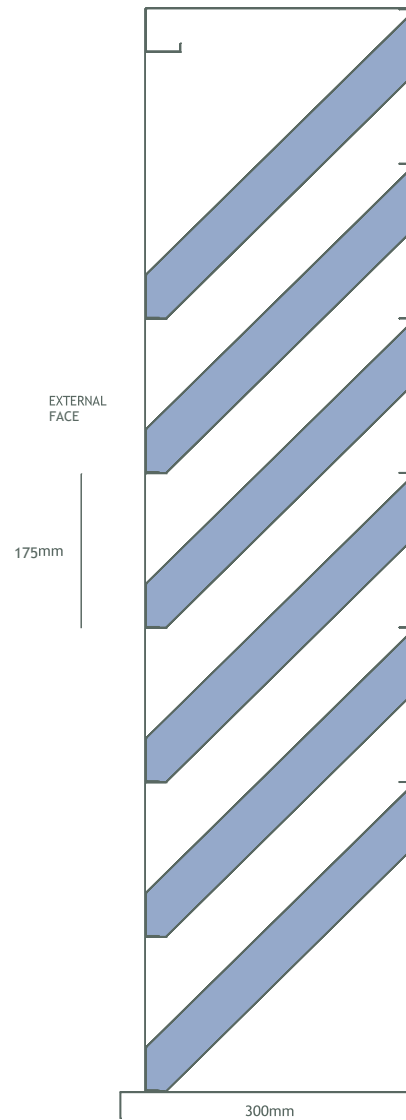


ACOUSTIC WEATHER LOUVRE SYSTEM SS330 FREE AREA = 53%

No of Intermediate Blades (SS300)

3	702
4	877
5	1052
6	1227
7	1402
8	1577
9	1752
10	1927
11	2102
12	2277
13	2452
14	2627

Standard Louvre Height (SS300)

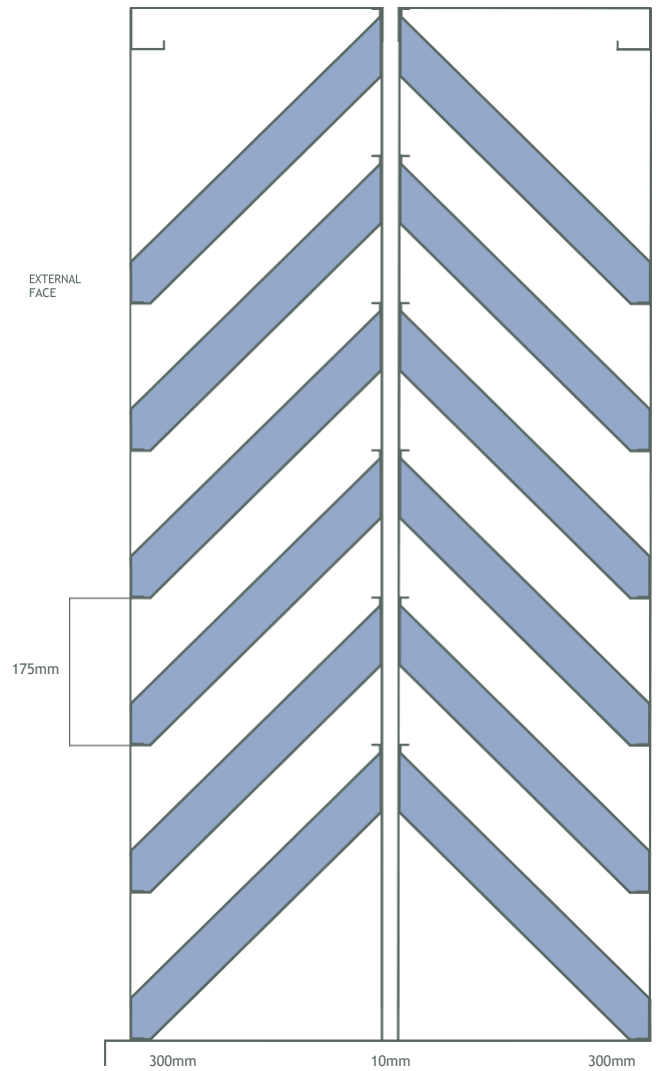


ACOUSTIC WEATHER LOUVRE SYSTEM SS600 FREE AREA = 53%

No of Intermediate Blades (SS600)

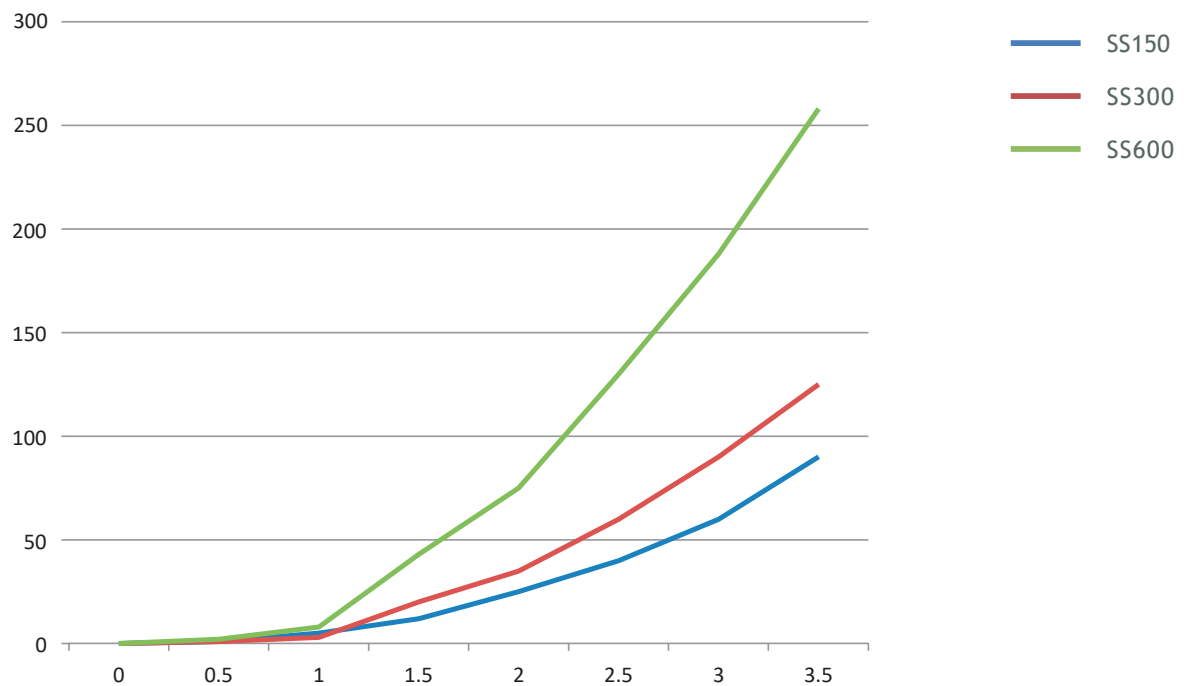
3	702
4	877
5	1052
6	1227
7	1402
8	1577
9	1752
10	1927
11	2102
12	2277
13	2452
14	2627

Standard Louvre Height (SS600)



SILENT SCREEN LOUVRE - PRESSURE DROP CURVES

Pressure Drop N/mm² (Pa)



SOUND TRANSMISSION LOSS (STL) RESULTS AS1191-2002 (CSIRO Independent results)

STL (sound transmission Loss)

Octive Band Frequencies	63	125	250	500	1K	2K	4K	8K	HZ
SS150	6.8	3.8	5.1	7.2	10.7	13.5	12	12.5	db
SS300	8.3	4.9	7.1	12.2	18.7	22.4	17.2	15.9	db
SS600	9.7	5.0	9.5	18.7	29.8	37.7	31.2	32.6	db

NB (Noise reduction)

Octive Band Frequencies	63	125	250	500	1K	2K	4K	8K	HZ
SS150	12.8	9.8	11.1	13.2	16.7	19.5	18	18.5	db
SS300	14.3	10.9	13.1	18.2	24.7	28.4	23.2	21.9	db
SS600	15.7	11.00	15.5	24.7	35.8	43.7	37.2	38.6	db