Louvres

Acoustic Louvres

SU 631 - Galvanized steel - SU 632
AU 631 - Aluminium - AU 632

Advantages

- Noise reduction with minimal airflow restrictions.
- AMCA Certified performances.

Aldes Middle East FZE certifies that SU 632 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures perfomed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration, Sound and Air Perfomance ratings only.

APPLICATION

- Mostly used for air exhaust but can also be used for air intake as well.
- Acoustic louvers are well-adapted to commercial and industrial applications.
- It can also be installed in a generator room.

DESCRIPTION

- Acoustic louvres designed to provide optimal acoustic performance (noise reduction) with minimal airflow restrictions (low pressure drop).

CONSTRUCTION

- Casing manufactured from 0.9mm galvanized steel.
- Double skin blade (similar to baffle) manufactured from 0.9mm galvanized steel on top side and 0.7mm galvanized steel perforated sheet on bottom side of blade. Blade pitch of 300mm to minimize water penetration.
- Sound absorbing material, Rockwool with woven fiberglass tissue facing, 50mm thick, density 48kg/m3. 3 layers of acoustic isnualtion are enclosed between two layers of blade to avoid erosion even at high velocities.
- SU 631: Acoustic louvre with total depth of 305mm.
- SU 632: Combination of two SU 631 (back-to-back) acoustic louvres to achieve a total depth of 610mm.
- Minimum single section size: 300 x 600mm
- Maximum single section size: 2450 x 2450mm
- Larger sizes manufactured in multiple sections for assembly at site.

AVAILABLE OPTIONS

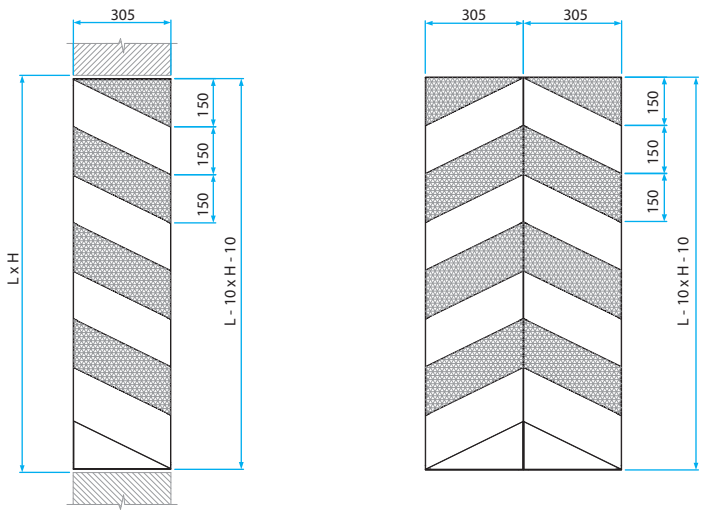
- Natural anodized aluminium, code A.
- Insect mesh in galvanized steel (6 x 6 x Ø 0.8 mm).
- Bird mesh in galvanized steel as standard (12 x 12 x Ø 1 mm).

RANGE

Type	Description	Code
SU 631	Construction in galvanized steel	
AU 631	Construction in aluminium	
EU 631	Construction in stainless steel (grade 304)	
*SU 632	Combination of two SU 631 back to back	
AU 632	Combination of two AU 631 back to back	
EU 632	Combination of two EU 631 back to back	

* Only SU 632 has AMCA Certified water penetration, sound and air performance.

DIMENSIONS (mm)



SU 631 SU 632

SOUND TRANSMISSION CLASS (STC)

STC is a rating of the effectiveness of an assembly in isolating or reducing airborne sound transmission. STC is a single number that summarizes airborne sound transmission loss data. Assemblies with higher STC ratings are more efficient at reducing sound transmission. STC is determined in accordance with ASTM E413-04.

TRANSMISSION LOSS (TL)

TL is a measurement of the reduction of sound power transmission (dB) through an assembly at a given frequency. The more sound power that is reduced, the greater the TL. TL is tested in accordance with ASTM E90-2004.

FREE FIELD NOISE REDUCTION (NR)

Free Field Noise Reduction is determined by adding 6 dB to the Transmission Loss.

SU 631

Frequency (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	5	5	5	6	6	6	5
Free Field Noise Reduction (dB)	11	11	11	12	12	12	

SU 632 (AMCA Certified)

Frequency (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	7	10	11	11	13	13	12
Free Field Noise Reduction (dB)	13	16	17	17	19	19	

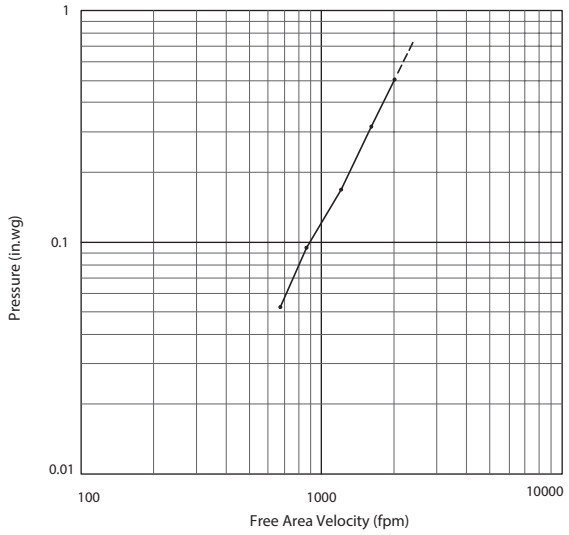
Louvres

Engineering & Prerfomance Data

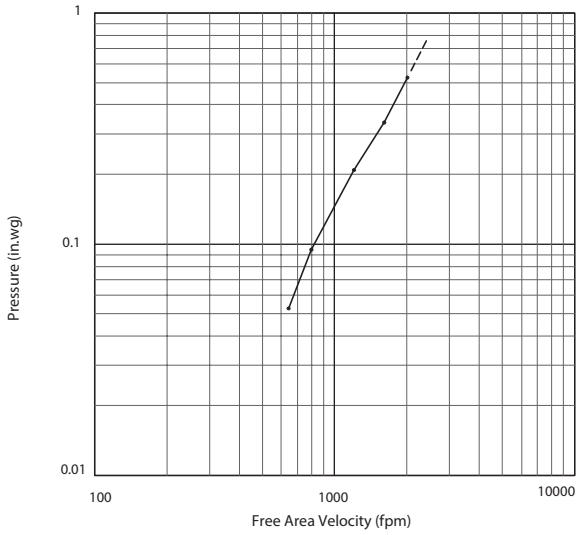
FREE AREA CHART - SU 631

Height (H)	Width (W)														
	12 in. 300 mm	18 in. 450 mm	24 in. 600 mm	30 in. 750 mm	36 in. 900 mm	42 in. 1050 mm	48 in. 1200 mm	54 in. 1350 mm	60 in. 1500 mm	66 in. 1650 mm	72 in. 1800 mm	80 in. 2000 mm	84 in. 2150 mm	90 in. 2300 mm	96 in. 2450 mm
24 in. 600 mm	0.787 ft2 0.072 m2	1.221 ft2 0.112 m2	1.656 ft2 0.151 m2	2.090 ft2 0.191 m2	2.524 ft2 0.231 m2	2.958 ft2 0.270 m2	3.393 ft2 0.310 m2	3.827 ft2 0.350 m2	4.261 ft2 0.390 m2	4.695 ft2 0.429 m2	5.130 ft2 0.469 m2	5.709 ft2 0.522 m2	5.998 ft2 0.562 m2	6.432 ft2 0.601 m2	6.866 ft2 0.641 m2
36 in. 900 mm	1.181 ft2 0.108 m2	1.832 ft2 0.167 m2	2.483 ft2 0.227 m2	3.135 ft2 0.286 m2	3.786 ft2 0.346 m2	4.437 ft2 0.406 m2	5.089 ft2 0.465 m2	5.740 ft2 0.525 m2	6.392 ft2 0.584 m2	7.043 ft2 0.644 m2	7.694 ft2 0.703 m2	8.563 ft2 0.783 m2	8.997 ft2 0.842 m2	9.648 ft2 0.902 m2	10.300 ft2 0.961 m2
48 in. 1200 mm	1.574 ft2 0.144 m2	2.443 ft2 0.223 m2	3.311 ft2 0.303 m2	4.180 ft2 0.382 m2	5.048 ft2 0.461 m2	5.917 ft2 0.541 m2	**6.785 ft2 0.620 m2**	7.654 ft2 0.700 m2	8.522 ft2 0.779 m2	9.391 ft2 0.858 m2	10.259 ft2 0.938 m2	11.417 ft2 1.044 m2	11.996 ft2 1.123 m2	12.865 ft2 1.203 m2	13.733 ft2 1.282 m2
60 in. 1500 mm	1.968 ft2 0.180 m2	3.053 ft2 0.279 m2	4.139 ft2 0.378 m2	5.225 ft2 0.477 m2	6.310 ft2 0.577 m2	7.396 ft2 0.676 m2	8.481 ft2 0.775 m2	9.567 ft2 0.875 m2	10.653 ft2 0.974 m2	11.738 ft2 1.073 m2	12.824 ft2 1.172 m2	14.271 ft2 1.305 m2	14.995 ft2 1.404 m2	16.081 ft2 1.503 m2	17.166 ft2 1.602 m2
72 in. 1800 mm	2.361 ft2 0.216 m2	3.664 ft2 0.335 m2	4.967 ft2 0.454 m2	6.269 ft2 0.573 m2	7.572 ft2 0.692 m2	8.875 ft2 0.811 m2	10.178 ft2 0.930 m2	11.480 ft2 1.049 m2	12.783 ft2 1.169 m2	14.086 ft2 1.288 m2	15.389 ft2 1.407 m2	17.126 ft2 1.566 m2	17.994 ft2 1.685 m2	19.297 ft2 1.804 m2	20.599 ft2 1.923 m2
84 in. 2150 mm	2.755 ft2 0.251 m2	4.275 ft2 0.390 m2	5.794 ft2 0.529 m2	7.314 ft2 0.668 m2	8.834 ft2 0.807 m2	10.354 ft2 0.946 m2	11.874 ft2 1.085 m2	13.394 ft2 1.224 m2	14.914 ft2 1.363 m2	16.433 ft2 1.502 m2	17.953 ft2 1.641 m2	19.980 ft2 1.827 m2	20.993 ft2 1.966 m2	22.513 ft2 2.104 m2	24.033 ft2 2.243 m2
96 in. 2450 mm	3.148 ft2 0.287 m2	4.885 ft2 0.446 m2	6.622 ft2 0.605 m2	8.359 ft2 0.764 m2	10.096 ft2 0.923 m2	11.833 ft2 1.082 m2	13.570 ft2 1.240 m2	15.307 ft2 1.399 m2	17.044 ft2 1.558 m2	18.781 ft2 1.717 m2	20.518 ft2 1.876 m2	22.834 ft2 2.087 m2	23.992 ft2 2.246 m2	25.729 ft2 2.405 m2	27.466 ft2 2.564 m2

AIR PERFORMANCE DATA - SU 631



AMCA Standard 500-L Intake Test
Figure 5.5 setup for size 48" x 48"
Data is corrected to standard air density

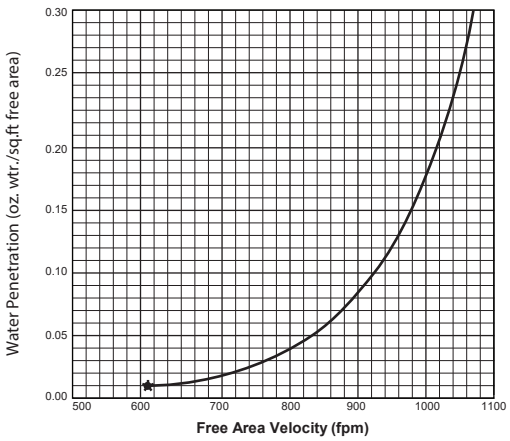


AMCA Standard 500-L Exhaust Test
Figure 5.5 setup for size 48" x 48"
Data is corrected to standard air density

WATER PENETRATION - SU 631

AMCA Standard 500-L Water penetration
Figure 5.6 setup for size 48" x 48"
Test duration 15 minutes
Data is corrected to standard air density

The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. of water (penetration) per sq. ft. of louver free area. The begining point of water penetration for model SU 631 as per AMCA Publication 511 section 8.3.2 is 611 fpm free area velocity.



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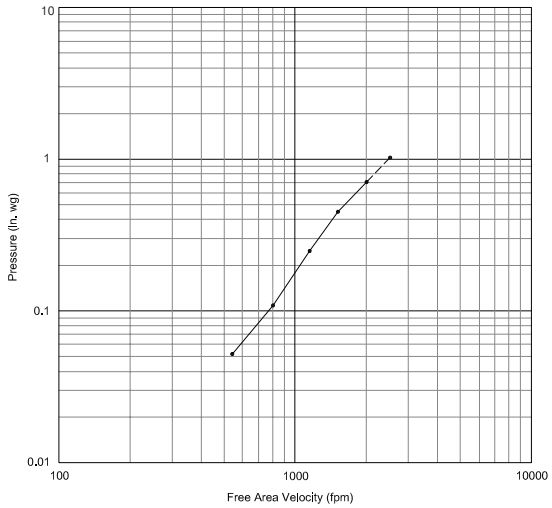
Engineering & Prerfomance Data

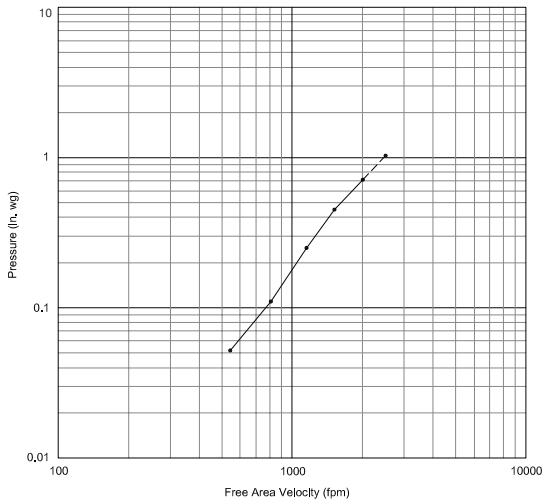
FREE AREA CHART - SU 632

Height (H)	Width (W)														
	12 in. 300 mm	18 in. 450 mm	24 in. 600 mm	30 in. 750 mm	36 in. 900 mm	42 in. 1050 mm	48 in. 1200 mm	54 in. 1350 mm	60 in. 1500 mm	66 in. 1650 mm	72 in. 1800 mm	80 in. 2000 mm	84 in. 2150 mm	90 in. 2300 mm	96 in. 2450 mm
24 in. 600 mm	0.743 ft^2 0.068 m^2	1.178 ft^2 0.108 m^2	1.613 ft^2 0.147 m^2	2.048 ft^2 0.187 m^2	2.483 ft^2 0.227 m^2	2.917 ft^2 0.267 m^2	3.352 ft^2 0.306 m^2	3.787 ft^2 0.346 m^2	4.222 ft^2 0.386 m^2	4.657 ft^2 0.426 m^2	5.092 ft^2 0.465 m^2	5.672 ft^2 0.518 m^2	5.962 ft^2 0.558 m^2	6.397 ft^2 0.598 m^2	6.831 ft^2 0.638 m^2
36 in. 900 mm	1.114 ft^2 0.102 m^2	1.767 ft^2 0.161 m^2	2.419 ft^2 0.221 m^2	3.071 ft^2 0.281 m^2	3.724 ft^2 0.340 m^2	4.376 ft^2 0.400 m^2	5.028 ft^2 0.460 m^2	5.681 ft^2 0.519 m^2	6.333 ft^2 0.579 m^2	6.986 ft^2 0.638 m^2	7.638 ft^2 0.698 m^2	8.508 ft^2 0.778 m^2	8.943 ft^2 0.837 m^2	9.595 ft^2 0.897 m^2	10.247 ft^2 0.957 m^2
48 in. 1200 mm	1.486 ft^2 0.135 m^2	2.356 ft^2 0.215 m^2	3.225 ft^2 0.295 m^2	4.095 ft^2 0.374 m^2	4.965 ft^2 0.454 m^2	5.835 ft^2 0.533 m^2	**6.705 ft^2 0.613 m^2**	7.574 ft^2 0.692 m^2	8.444 ft^2 0.772 m^2	9.314 ft^2 0.851 m^2	10.184 ft^2 0.931 m^2	11.344 ft^2 1.037 m^2	11.923 ft^2 1.116 m^2	12.793 ft^2 1.196 m^2	13.663 ft^2 1.275 m^2
60 in. 1500 mm	1.857 ft^2 0.169 m^2	2.945 ft^2 0.269 m^2	4.032 ft^2 0.368 m^2	5.119 ft^2 0.468 m^2	6.206 ft^2 0.567 m^2	7.294 ft^2 0.666 m^2	8.381 ft^2 0.766 m^2	9.468 ft^2 0.865 m^2	10.555 ft^2 0.965 m^2	11.643 ft^2 1.064 m^2	12.730 ft^2 1.164 m^2	14.179 ft^2 1.296 m^2	14.904 ft^2 1.396 m^2	15.991 ft^2 1.495 m^2	17.079 ft^2 1.594 m^2
72 in. 1800 mm	2.229 ft^2 0.203 m^2	3.534 ft^2 0.323 m^2	4.838 ft^2 0.442 m^2	6.143 ft^2 0.561 m^2	7.448 ft^2 0.680 m^2	8.752 ft^2 0.800 m^2	10.057 ft^2 0.919 m^2	11.362 ft^2 1.038 m^2	12.666 ft^2 1.158 m^2	13.971 ft^2 1.277 m^2	15.276 ft^2 1.396 m^2	17.015 ft^2 1.555 m^2	17.885 ft^2 1.675 m^2	19.190 ft^2 1.794 m^2	20.494 ft^2 1.913 m^2
84 in. 2150 mm	2.600 ft^2 0.237 m^2	4.122 ft^2 0.376 m^2	5.645 ft^2 0.515 m^2	7.167 ft^2 0.655 m^2	8.689 ft^2 0.794 m^2	10.211 ft^2 0.933 m^2	11.733 ft^2 1.072 m^2	13.255 ft^2 1.211 m^2	14.777 ft^2 1.351 m^2	16.300 ft^2 1.490 m^2	17.822 ft^2 1.629 m^2	19.851 ft^2 1.815 m^2	20.866 ft^2 1.954 m^2	22.388 ft^2 2.093 m^2	23.910 ft^2 2.232 m^2
96 in. 2450 mm	2.972 ft^2 0.271 m^2	4.711 ft^2 0.430 m^2	6.451 ft^2 0.589 m^2	8.191 ft^2 0.748 m^2	9.930 ft^2 0.907 m^2	11.670 ft^2 1.066 m^2	13.409 ft^2 1.225 m^2	15.149 ft^2 1.384 m^2	16.888 ft^2 1.544 m^2	18.628 ft^2 1.703 m^2	20.368 ft^2 1.862 m^2	22.687 ft^2 2.074 m^2	23.847 ft^2 2.233 m^2	25.586 ft^2 2.392 m^2	27.326 ft^2 2.551 m^2

AIR PERFORMANCE DATA - SU 632 (AMCA Certified)



AMCA Standard 500-L Intake Test
Figure 5.5 setup for size 48" x 48"
Data is corrected to standard air density



AMCA Standard 500-L Exhaust Test
Figure 5.5 setup for size 48" x 48"
Data is corrected to standard air density

WATER PENETRATION - SU 632 (AMCA Certified)

AMCA Standard 500-L Water penetration
Figure 5.6 setup for size 48" x 48"
Test duration 15 minutes
Data is corrected to standard air density

The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. of water (penetration) per sq. ft. of louver free area. **The begining point of water penetration for model SU 632 as per AMCA Publication 511 section 8.3.2 is 708 fpm free area velocity.**