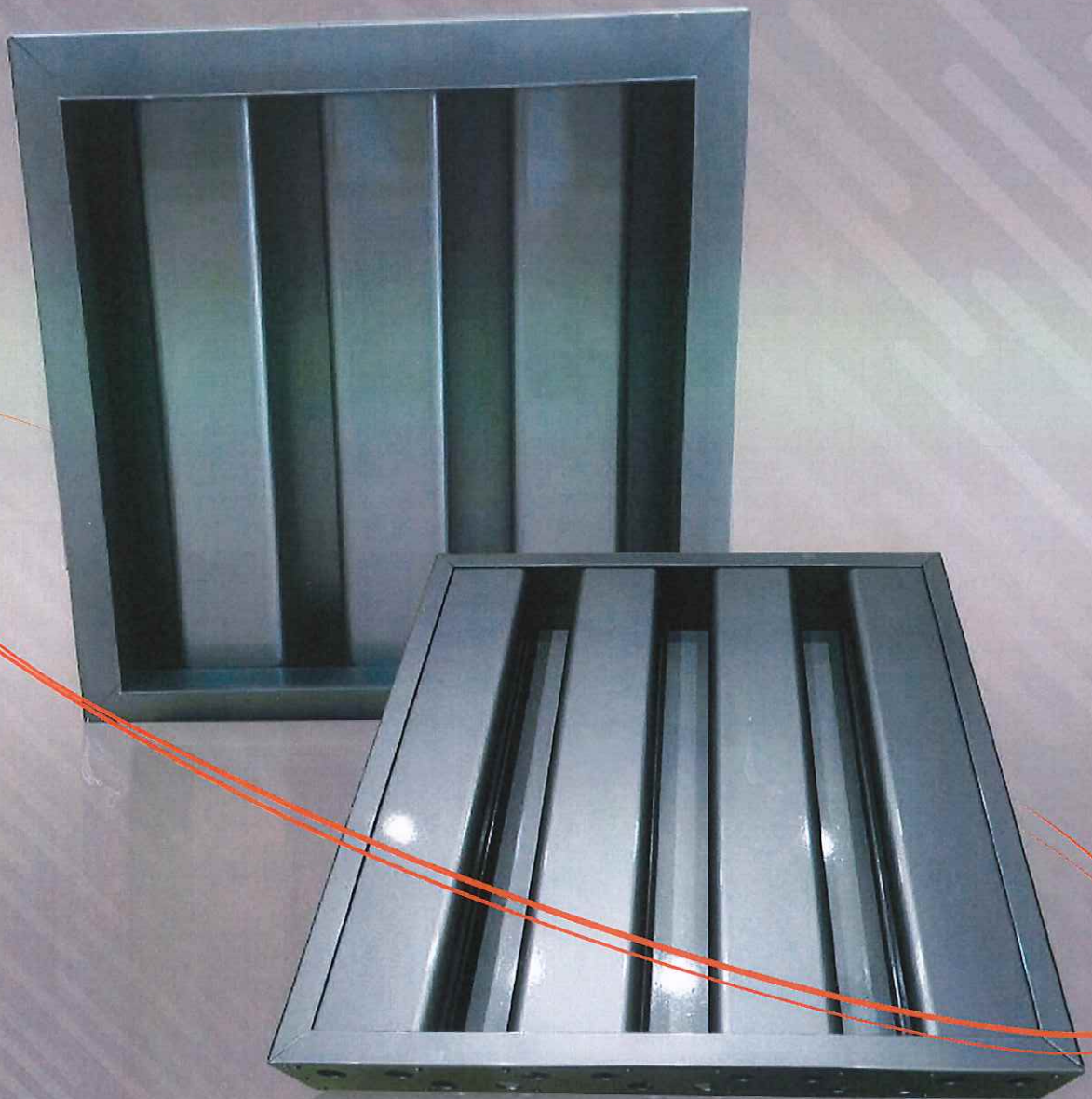




**ENERGY
INDUSTRIAL COMPANY**



SAND TRAP LOUVERS



SERIES STL SAND TRAP LOUVERS

Series STL sand trap louvers are specialty louvers, designed to be the primary filters for air intakes in areas where sand and dust are prevalent.

The STL louver consist of two rows of interlocking vertical blades that catches up to 93% of sand and dust, where it drops down on to emptying holes or sloped sill then ejected through the louver face by gravity.



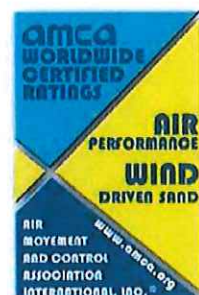
DESIGN FEATURES

Material	Aluminum Construction.
Blades	Vertically mounted aerodynamic profiles 100mm face
Core	Fixed
Frame	Offset as standard. recessed or flanged as optional
Finish	Mill as standard. Epoxy powder coating as optional
Mass/m² face area	17 kg
Free Area	35 % (varies per size)
Important note	It is possible to have two identical louvers of same free area but with different airflow characteristics.

AMCA TESTING

Series STL sand trap louvers have been tested against **AMCA 511** Certified Rating Program
The test was carried out in October 2016 by **AMCA**

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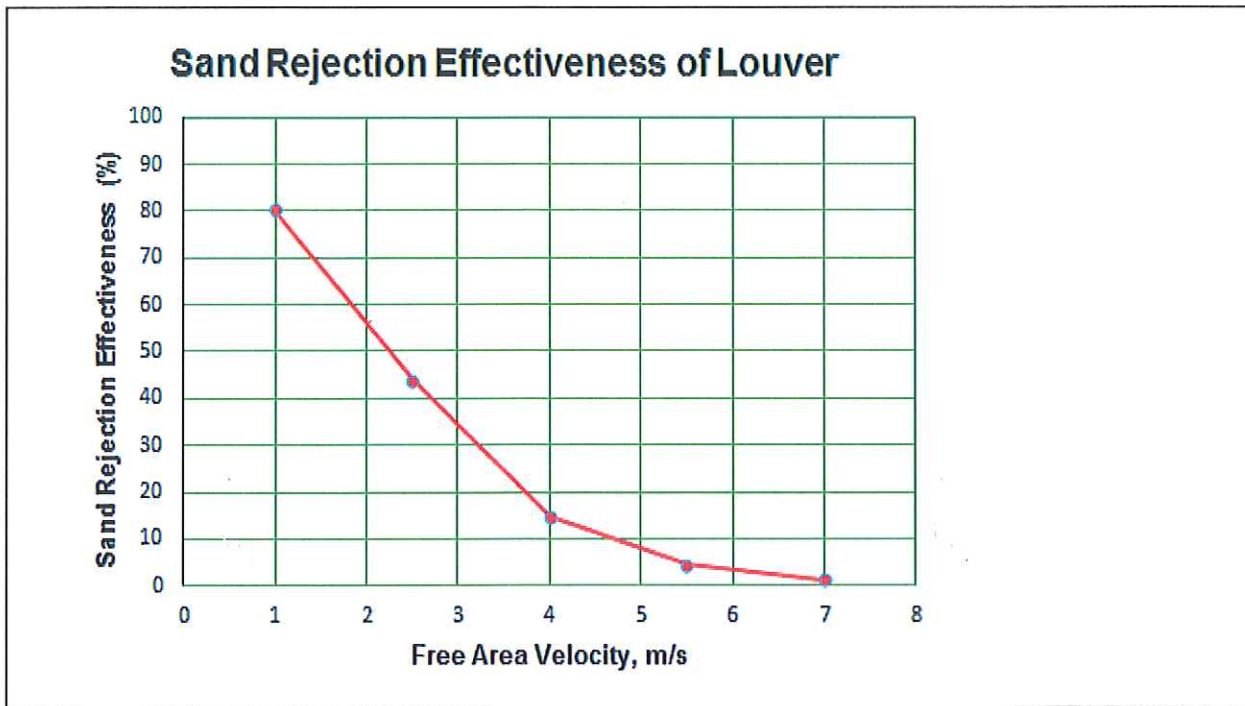
PERFORMANCE DATA

Sand Rejection Performance

- 80 % effective at 1.0 m/s draw velocity
- Sand is blown at louver at 20-25 m/s in the sand injection tube
- Tested louver size 1220mm x 1220mm
- The sand grading used is between 76µm - 699µm as per AMCA 500 L, Annex H, Table 8.
- Based on this data, we recommend 1.0 m/s draw velocity is the maximum used when sizing up sand trap louvers to assure good performance

Sand Rejection Effectiveness

Drawn Velocity m/s	Sand Rejection Effectiveness %	Penetration Class
1.0	80.05	C
2.5	43.80	D
4.0	14.87	D
5.5	4.40	D
7.0	1.35	D



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Airflow Performance

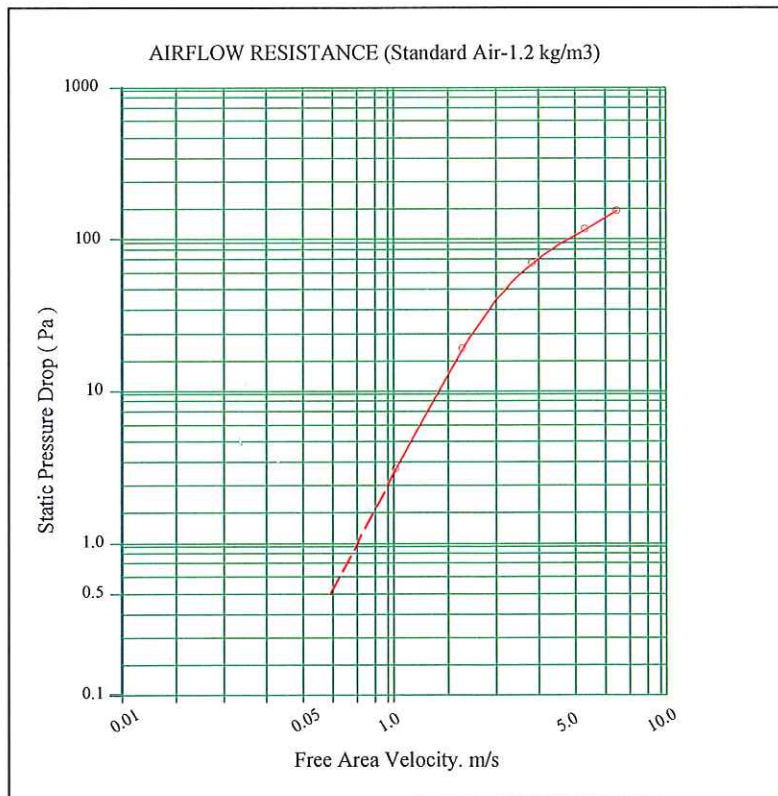
Actual Test Data

Test	Free Area Velocity m/s	Air Flow Rate m ³ /s	Pressure Drop Pa
1	1.04	0.44	3
2	2.27	0.96	24
3	3.86	1.64	67
4	5.37	2.28	134
5	6.45	2.74	193

Free Area of 1220mmX 1220mm = 0.425 m²

Free Area Velocity (m/s) = Air flow rate (m³/s) / Free Area (m²)

Test done in Intake mode : Fig 5.5



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Free Area Chart (m²)

		Height (mm)											
		470	620	770	920	1070	1220	1370	1520	1670	1820	1970	2120
Width (mm)	470	0.05	0.07	0.09	0.11	0.13	0.15	0.17	0.19	0.20	0.22	0.24	0.26
	620	0.07	0.09	0.12	0.15	0.17	0.20	0.23	0.26	0.28	0.31	0.34	0.36
	770	0.08	0.12	0.15	0.19	0.22	0.26	0.29	0.33	0.36	0.40	0.43	0.47
	920	0.10	0.15	0.19	0.23	0.27	0.31	0.36	0.40	0.44	0.48	0.52	0.57
	1070	0.12	0.17	0.22	0.27	0.32	0.37	0.42	0.47	0.52	0.57	0.62	0.67
	1220	0.14	0.20	0.25	0.31	0.37	0.43	0.48	0.54	0.60	0.65	0.71	0.77
	1370	0.16	0.22	0.29	0.35	0.42	0.48	0.55	0.61	0.68	0.74	0.80	0.87
	1520	0.18	0.25	0.32	0.39	0.46	0.54	0.61	0.68	0.75	0.83	0.90	0.97
	1670	0.19	0.27	0.35	0.43	0.51	0.59	0.67	0.75	0.83	0.91	0.99	1.07
	1820	0.21	0.30	0.39	0.47	0.56	0.65	0.74	0.82	0.91	1.00	1.08	1.17
	1970	0.23	0.33	0.42	0.52	0.61	0.70	0.80	0.89	0.99	1.08	1.18	1.27
	2120	0.25	0.35	0.45	0.56	0.66	0.76	0.86	0.96	1.07	1.17	1.27	1.37
	2270	0.27	0.38	0.49	0.60	0.71	0.82	0.93	1.04	1.15	1.25	1.36	1.47
	2420	0.29	0.40	0.52	0.64	0.76	0.87	0.99	1.11	1.22	1.34	1.46	1.57
	2570	0.30	0.43	0.55	0.68	0.80	0.93	1.05	1.18	1.30	1.43	1.55	1.68
	2720	0.32	0.46	0.59	0.72	0.85	0.98	1.12	1.25	1.38	1.51	1.64	1.78
	2870	0.34	0.48	0.62	0.76	0.90	1.04	1.18	1.32	1.46	1.60	1.74	1.88
	3020	0.36	0.51	0.65	0.80	0.95	1.10	1.24	1.39	1.54	1.68	1.83	1.98
	3170	0.38	0.53	0.69	0.84	1.00	1.15	1.31	1.46	1.62	1.77	1.92	2.08
	3320	0.40	0.56	0.72	0.88	1.05	1.21	1.37	1.53	1.69	1.86	2.02	2.18
3470	0.42	0.58	0.75	0.92	1.09	1.26	1.43	1.60	1.77	1.94	2.11	2.28	
3620	0.43	0.61	0.79	0.96	1.14	1.32	1.50	1.67	1.85	2.03	2.20	2.38	
3770	0.45	0.64	0.82	1.01	1.19	1.37	1.56	1.74	1.93	2.11	2.30	2.48	
3920	0.47	0.66	0.85	1.05	1.24	1.43	1.62	1.81	2.01	2.20	2.39	2.58	

		Height (mm)										
		2270	2420	2570	2720	2870	3020	3170	3320	3470	3620	3770
Width (mm)	470	0.28	0.30	0.32	0.34	0.36	0.38	0.40	0.42	0.44	0.46	0.48
	620	0.39	0.42	0.45	0.47	0.50	0.53	0.55	0.58	0.61	0.64	0.66
	770	0.50	0.53	0.57	0.60	0.64	0.67	0.71	0.74	0.78	0.81	0.85
	920	0.61	0.65	0.69	0.73	0.78	0.82	0.86	0.90	0.95	0.99	1.03
	1070	0.72	0.77	0.82	0.87	0.92	0.96	1.01	1.06	1.11	1.16	1.21
	1220	0.83	0.88	0.94	1.00	1.05	1.11	1.17	1.23	1.28	1.34	1.40
	1370	0.93	1.00	1.06	1.13	1.19	1.26	1.32	1.39	1.45	1.52	1.58
	1520	1.04	1.11	1.19	1.26	1.33	1.40	1.47	1.55	1.62	1.69	1.76
	1670	1.15	1.23	1.31	1.39	1.47	1.55	1.63	1.71	1.79	1.87	1.95
	1820	1.26	1.35	1.43	1.52	1.61	1.69	1.78	1.87	1.96	2.04	2.13
	1970	1.37	1.46	1.56	1.65	1.75	1.84	1.93	2.03	2.12	2.22	2.31
	2120	1.48	1.58	1.68	1.78	1.88	1.99	2.09	2.19	2.29	2.39	2.50
	2270	1.58	1.69	1.80	1.91	2.02	2.13	2.24	2.35	2.46	2.57	2.68
	2420	1.69	1.81	1.93	2.04	2.16	2.28	2.39	2.51	2.63	2.75	2.86
	2570	1.8	1.92	2.05	2.17	2.30	2.42	2.55	2.67	2.80	2.92	3.05
	2720	1.91	2.04	2.17	2.31	2.44	2.57	2.70	2.83	2.97	3.10	3.23
	2870	2.02	2.16	2.30	2.44	2.58	2.72	2.85	2.99	3.13	3.27	3.41
	3020	2.13	2.27	2.42	2.57	2.71	2.86	3.01	3.16	3.30	3.45	3.60
	3170	2.23	2.39	2.54	2.70	2.85	3.01	3.16	3.32	3.47	3.63	3.78
	3320	2.34	2.50	2.67	2.83	2.99	3.15	3.31	3.48	3.64	3.80	3.96
3470	2.45	2.62	2.79	2.96	3.13	3.30	3.47	3.64	3.81	3.98	4.15	
3620	2.56	2.74	2.91	3.09	3.27	3.44	3.62	3.80	3.98	4.15	4.33	
3770	2.67	2.85	3.04	3.22	3.41	3.59	3.77	3.96	4.14	4.33	4.51	
3920	2.78	2.97	3.16	3.35	3.54	3.74	3.93	4.12	4.31	4.50	4.70	

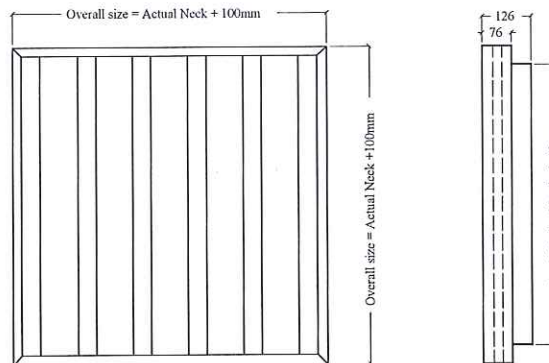
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Dimensional Drawings

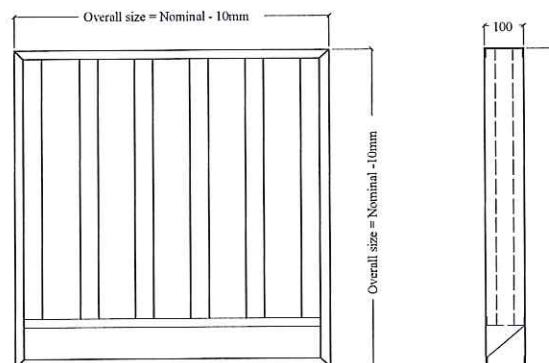
STLO - Offset

- The neck side of the Louver sits in the wall, while the front side is resting on the wall.
- Approx. 17kg/m²



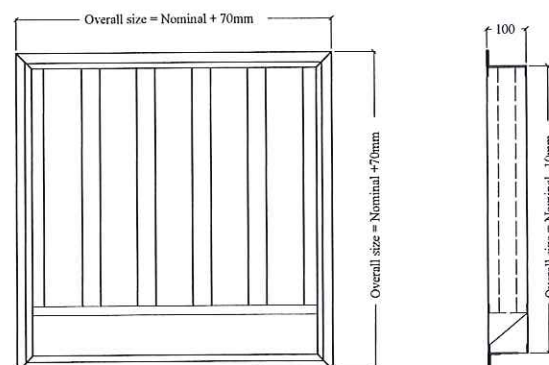
STLR - Recessed

- Whole louver sits inside the wall opening.
- Approx. 17kg/m²



STLF - Flanged

- Louver frame sits inside the wall aperture, while the front flange rest on the wall by screws, see STLO option in this catalogue.
- Flange size is 38mm as STD. unless specified by customer.
- Approx. 17kg/m²



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Additional Filters

Series STL sand trap louvers are available with a full range of disposable and replaceable filters.

The aluminum washable filter with frame is secured behind the louver blades, with clip angles and bolts.

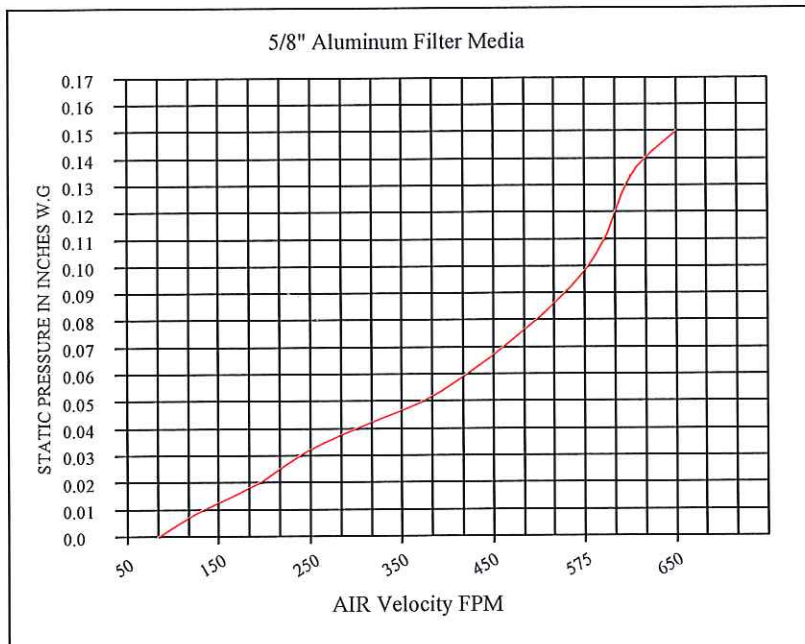
For filter maintenance simply, unscrew the bolts, to allow the filter and its frame to come away from the louver.

- The filter media is 5/8 " as STD. unless specified by client. Please see chart below.

Note:
When calculating the sand trap louver pressure drop, please add the pressure drop of the filter to the total Pd.,,
Graph below is not certified by AMCA.



Filter Pressure Drop Performance



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Installations / Fixings

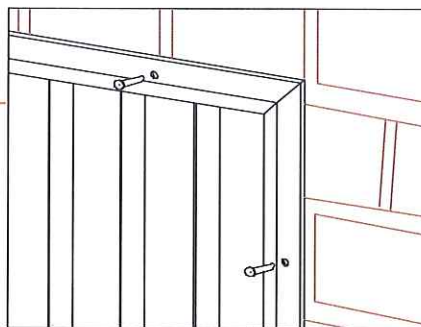
Predrilled face fixing holes - FH

8mm fixing holes predrilled into the louver frame before powder coating for quick and easy fitting on site.

Number and layout of fixing holes will be appropriate to louver size. arrangements can be specified.

This option is only available with flanged louvers.

Fixings are shown for illustration only.



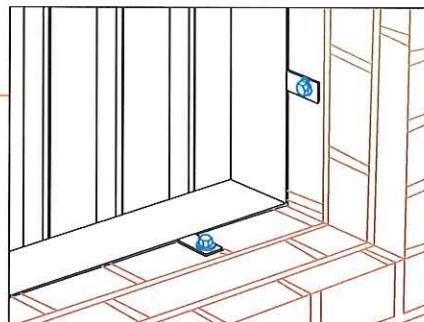
Rear mounted concealed - FL

Fixing lugs will be welded to the rear of the louver frame extending 50mm from the rear of the louver neck.

These can be drilled and bolted through providing an easy to access, concealed fixing point.

This option is only available with the STLO model.

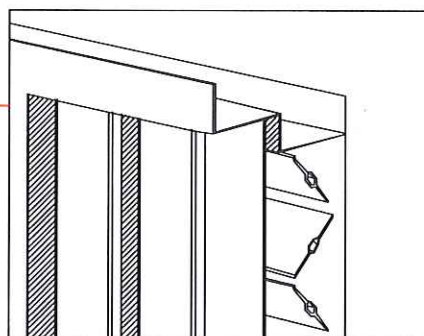
Fixings are shown for illustration only.



Volume control

Sand trap louvers can be factory fitted with a rear mounted VC aluminum volume control damper providing a sand trap louver with guaranteed performance and a volume control damper in one easy to fit unit.

If required, VCD's can be replaced with shut off dampers. The same format damper, fitted with additional seals, these provide much greater levels of shut off than standard volume control dampers.



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Finish

Mill aluminum.
Epoxy powder coating to any RAL colour.

RAL (Powder coated) Colours

Ral 3002	Ral 3003	Ral 3004	Ral 3005	Ral 3009	Ral 3011	Ral 3017	Ral 3020	Ral 5000	Ral 5002
Ral 5003	Ral 5005	Ral 5009	Ral 5010	Ral 5011	Ral 5012	Ral 5013	Ral 5014	Ral 5015	Ral 5017
Ral 5018	Ral 5019	Ral 5020	Ral 5021	Ral 5022	Ral 5024	Ral 6001	Ral 6002	Ral 6003	Ral 6005
Ral 6007	Ral 6009	Ral 6011	Ral 6012	Ral 6016	Ral 6018	Ral 6021	Ral 6021	Ral 6026	Ral 6029
Ral 6032	Ral 6033	Ral 1003	Ral 1007	Ral 1016	Ral 1018	Ral 1023	Ral 1024	Ral 1028	Ral 1033
Ral 1001	Ral 1013	Ral 1014	Ral 1015	Ral 9001	Ral 7006	Ral 8000	Ral 8012	Ral 8017	Ral 8022
Ral 8023	Ral 2000	Ral 2002	Ral 2004	Ral 2008	Ral 9003	Ral 9017	Ral 7000	Ral 7001	Ral 7004

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OTHER PRODUCTS

Centrifugal Products



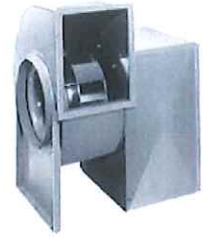
› **Domex**
Centrifugal
Roof Exhausters



› **Fumex Fatrap**
Kitchen Hood Centrifugal
Roof Exhausters



› **Zephyr**
Ceiling and Inline Fans



› **Dynamo**
Centrifugal Blowers



› **Centrex Inliner**
Centrifugal Inline Fan



› **LC Dynafan**
Low Contour Centrifugal
Roof Exhausters



› **ESI**
Efficient Silent
Inline Fan



› **Fume Exhaust**
Curb Mounted
Centrifugal Fans

Axial / Gravity Products



› **Breezeway**
Propeller Wall Fan



› **Hi-Ex**
Power Roof Ventilator



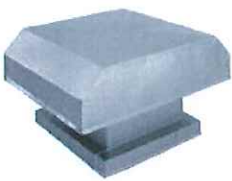
› **Tubeaxial**
Inline Fans



› **Vaneaxial**
Inline Fans



› **Powered Airette**
Axial Roof Ventilators



› **Airette**
Gravity Intake/Relief Hood



› **Domex Axial**
Axial Roof Ventilators



› **Axcentrix**
Bifurcator Fan

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STL - A04 - V1

Nov - 2016

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