

Sand Trap Louvers



CVS 
LOUVER SERIES



MODEL STL 4.2-XT ULTRA LOW PRESSURE VERTICAL BLADE SAND TRAP LOUVER

STANDARD CONSTRUCTION:

Frame: 0.08" (2.00mm) Extruded Aluminum 6063 T6 or Galvanized Steel or Stainless Steel

Blade: 0.08" (2.00mm) Extruded Aluminum 6063 T6 or Galvanized Steel or Stainless Steel

Bird Screen: 0.75" x .051" Flattened Aluminum in removable frame. Screen is mounted as standard on inside (rear) as looking from exterior of building. Galvanized Steel or Stainless Steel screens are also available in various sizes.

Finish: Mill Aluminum (Std.)

Minimum Size: 12" x 12" (300mm x 300mm)

Maximum Section Size: 120" x 84" (3000 mm x 2100 mm) / 84" x 120" (2100 mm x 3000 mm)

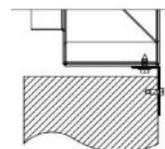
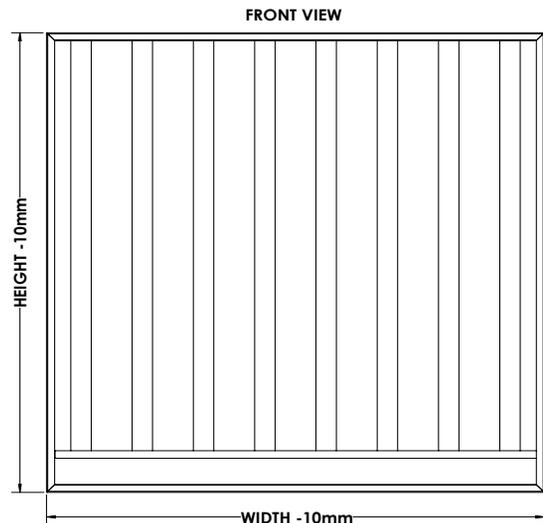
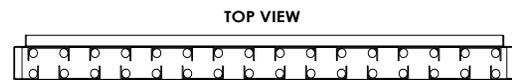
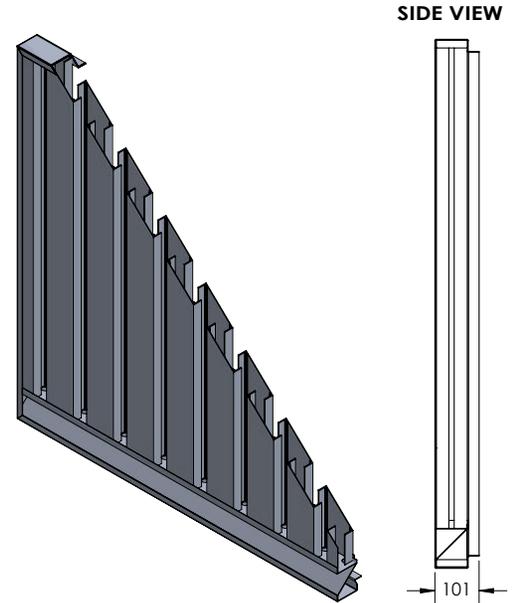
OPTIONS:

- Galvanized Steel Construction
- Stainless Steel Construction
- Welded Construction (Wind Load +/- 50 psft)
- Heavy Gauge (Please consult for availability)
- Security Bars
- Filter Racks
- Bird Screen
- Washable Filter (1/2", 3/5", 1")
- Extended Sill (with Chute)
- Optional Flange (with Chute)

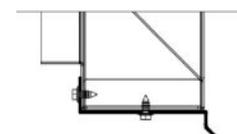


AVAILABLE FINISHES:

- Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM*A*STAR®) 2 coats by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry Meets AAMA-2604-04 Standards
- Kynar 500®** or HYLAR® 5000 70% TRINAR® (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards OPTIONAL
- Kynar 500®** or HYLAR® 5000 (70% Tri-Escent II) (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments create subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize** 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize** 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- Integral Color Anodize** (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



OPTIONAL FLANGE



OPTIONAL EXTENDED SILL

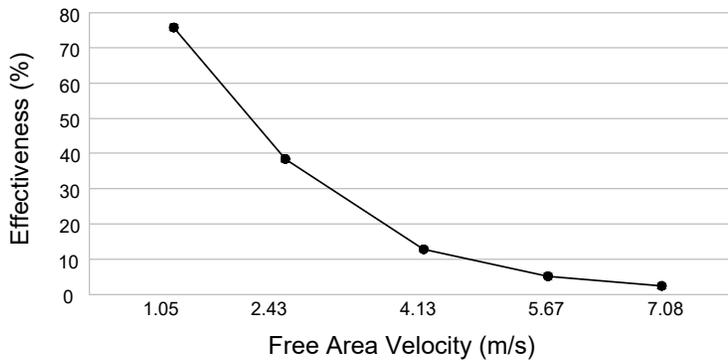


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MODEL STL 4.2-XT ULTRA LOW PRESSURE VERTICAL BLADE SAND TRAP LOUVER

Drawn By: DND	Approved BY: SB	REV. No.: 01	Date: March 2022	Cat ID: STL4.2-XT	Page: 1/4
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WIND DRIVEN SAND PERFORMANCE GRAPH



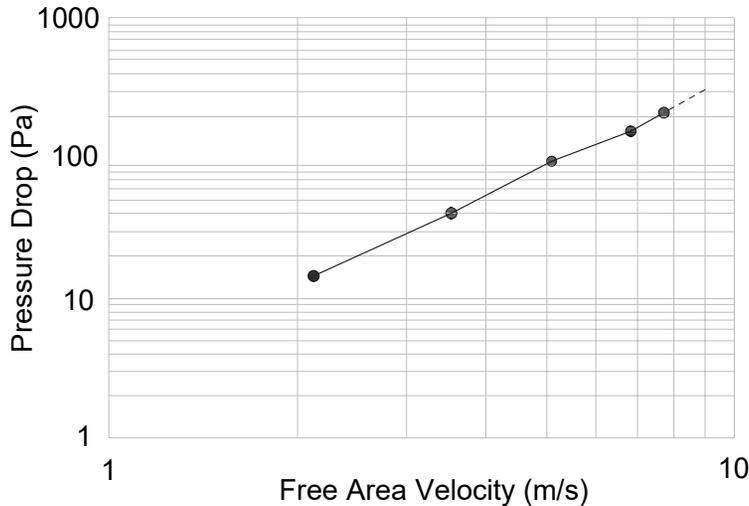
SAND REJECTION PERFORMANCE

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

Test No	Airflow Rate m ³ /s	Free Area Velocity (m/s)	Total Mass Injected g	Total mass Rejected g	Louver Effectiveness %
1	0.40	1.05	1000.3	761.2	76.10
2	0.94	2.43	1000.2	386.1	38.60
3	1.60	4.13	2000.7	257.8	12.89
4	2.19	5.67	2000.7	106.0	5.30
5	2.74	7.08	2000.9	47.2	2.36

Test Sample size is 48"x48" with a tolerance of +0, -0.25".
 Wind driven sand performance data is based on intake performance.
 Sand grade mass distribution per AMCA 511.

PRESSURE DROP GRAPH



PRESSURE DROP OF LOUVER

Pressure Drop (Pa)	Airflow Rate (m ³ /s)	Free Area Velocity (m/s)
14.42	0.82	2.12
41.21	1.37	3.54
95.77	1.97	5.08
156.45	2.63	6.79
210.9	2.99	7.72

SUGGESTED SPECIFICATION

"Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary with fixed vertical blades formed or extruded and contained within a 3" frame. Where Duct Connection neck or filter rack is installed, frame shall be extended on the discharge side. Louver components (heads, jambs, sills, blades and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30lbs. per sq.ft."

"Published louver performance bearing the AMCA Certified Ratings Seal for Air Performance & Wind Driven Sand must be submitted for approval prior to fabrication and must demonstrate pressure drop less than the CVS model specified. "

"Louver shall be model STL 4.2-XT, extruded Aluminum 6063-T6 construction as follows:
 Frame: 3" Deep, 0.08" nominal wall thickness with sand discharge points at the bottom
 Blades: 0.08" nominal wall thickness, blades are spaced at 2" apart"



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FREE AREA CHART STL 4.2-XT

Height (H)	Width (W)																		
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12 in.	0.09	0.27	0.44	0.62	0.80	0.97	1.14	1.32	1.49	1.67	1.84	2.01	2.18	2.35	2.52	2.69	2.86	3.03	3.20
18 in.	0.17	0.51	0.86	1.20	1.54	1.88	2.22	2.56	2.90	3.24	3.58	3.92	4.26	4.60	4.94	5.28	5.62	5.96	6.30
24 in.	0.25	0.76	1.27	1.77	2.29	2.81	3.32	3.83	4.34	4.85	5.36	5.87	6.38	6.89	7.40	7.91	8.42	8.93	9.44
30 in.	0.34	1.01	1.68	2.35	3.02	3.69	4.36	5.03	5.70	6.37	7.04	7.71	8.38	9.05	9.72	10.39	11.06	11.73	12.40
36 in.	0.42	1.25	2.09	2.92	3.75	4.58	5.41	6.24	7.07	7.90	8.73	9.56	10.39	11.22	12.05	12.88	13.71	14.54	15.37
42 in.	0.50	1.50	2.50	3.49	4.49	5.49	6.49	7.49	8.49	9.49	10.49	11.49	12.49	13.49	14.49	15.49	16.49	17.49	18.49
48 in.	0.58	1.74	2.91	4.07	5.22	6.37	7.52	8.67	9.82	10.97	12.12	13.27	14.42	15.57	16.72	17.87	19.02	20.17	21.32
54 in.	0.66	1.99	3.32	4.64	5.96	7.28	8.60	9.92	11.24	12.56	13.88	15.20	16.52	17.84	19.16	20.48	21.80	23.12	24.44
60 in.	0.75	2.24	3.73	5.22	6.71	8.20	9.69	11.18	12.67	14.16	15.65	17.14	18.63	20.12	21.61	23.10	24.59	26.08	27.57
66 in.	0.83	2.48	4.14	5.79	7.44	9.09	10.74	12.39	14.04	15.69	17.34	18.99	20.64	22.29	23.94	25.59	27.24	28.89	30.54
72 in.	0.91	2.73	4.55	6.36	8.27	10.18	12.09	14.00	15.91	17.82	19.73	21.64	23.55	25.46	27.37	29.28	31.19	33.10	35.01
78 in.	0.99	2.97	4.96	7.05	9.24	11.43	13.62	15.81	18.00	20.19	22.38	24.57	26.76	28.95	31.14	33.33	35.52	37.71	39.90
84 in.	1.07	3.22	5.37	7.66	10.05	12.44	14.83	17.22	19.61	22.00	24.39	26.78	29.17	31.56	33.95	36.34	38.73	41.12	43.51
90 in.	1.16	3.47	5.78	8.09	10.58	13.07	15.56	18.05	20.54	23.03	25.52	28.01	30.50	32.99	35.48	37.97	40.46	42.95	45.44
96 in.	1.24	3.71	6.19	8.60	11.01	13.52	16.03	18.54	21.05	23.56	26.07	28.58	31.09	33.60	36.11	38.62	41.13	43.64	46.15
102 in.	1.32	3.96	6.60	9.02	11.53	14.04	16.55	19.06	21.57	24.08	26.59	29.10	31.61	34.12	36.63	39.14	41.65	44.16	46.67
108 in.	1.40	4.20	7.01	9.53	12.04	14.55	17.06	19.57	22.08	24.59	27.10	29.61	32.12	34.63	37.14	39.65	42.16	44.67	47.18
114 in.	1.48	4.45	7.42	9.94	12.45	14.96	17.47	19.98	22.49	25.00	27.51	30.02	32.53	35.04	37.55	40.06	42.57	45.08	47.59
120 in.	1.57	4.70	7.83	10.36	12.86	15.27	17.68	20.09	22.50	24.91	27.32	29.73	32.14	34.55	36.96	39.37	41.78	44.19	46.60
3000 mm	0.14	0.43	0.72	1.00	1.29	1.57	1.86	2.15	2.44	2.73	3.02	3.31	3.60	3.89	4.18	4.47	4.76	5.05	5.34

--- Louvers will be manufactured in multi-section configuration for these highlighted sizes.



Central Ventilation Systems certifies that STL 4.2-XT shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The certified ratings seal applies to wind driven sand and air performance ratings.

LOUVER SERIES



Tested for wind driven sand rejection in accordance with AMCA Standard 500-L, Figure 5.12.





MODEL STL 4.2 ULTRA LOW PRESSURE VERTICAL BLADE SAND TRAP LOUVER

STL 4.2 is designed to protect air intakes from wind-driven sand with best in class air performance. Vertical sight proof blades separate sand from the airstream and offer high clearance from sand tray to prevent ingress of sand. STL4.2 is designed for the most demanding applications such as Fresh Air intakes for buildings, Air Handling Units, Generator Rooms with a focus on high air flow performance to minimize fan loading.

STANDARD CONSTRUCTION:

- Frame:** 0.08" (2.00mm) Extruded 6063 Extruded Aluminum or Formed
- Blade:** 0.06" (1.50mm) Extruded 6063 Extruded Aluminum or Formed
- Birdscreen:** 0.75" x .051" Flattened Aluminum in removable frame.
Screen is mounted as standard on inside (rear) as looking from exterior of building. Steel screens are also available in various sizes.
- Finish:** Mill Aluminum (Std.)
- Minimum Size:** 12" x 12" (300mm x 300mm)
- Maximum Section Size:** 120" x 120" (3000mm x 3000mm)

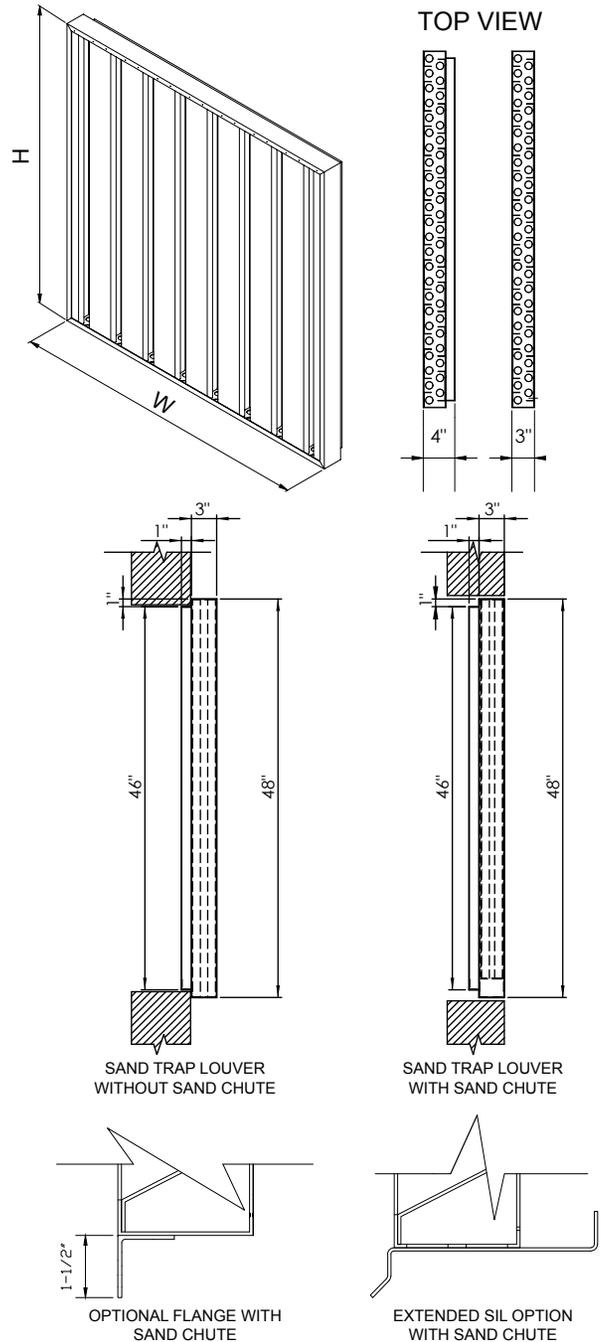
OPTIONS:

- Galvanized Steel Construction
- Stainless Steel Construction
- Welded Construction (Wind Load +/- 50 psf)
- Heavy Gauge (Please consult for availability)
- Security Bars
- Filter Racks
- Bird Screen
- Washable Filter (1/2", 3/5", 1")
- Extended Sil (with Chute)
- Optional Flange (with Chute)



AVAILABLE FINISHES:

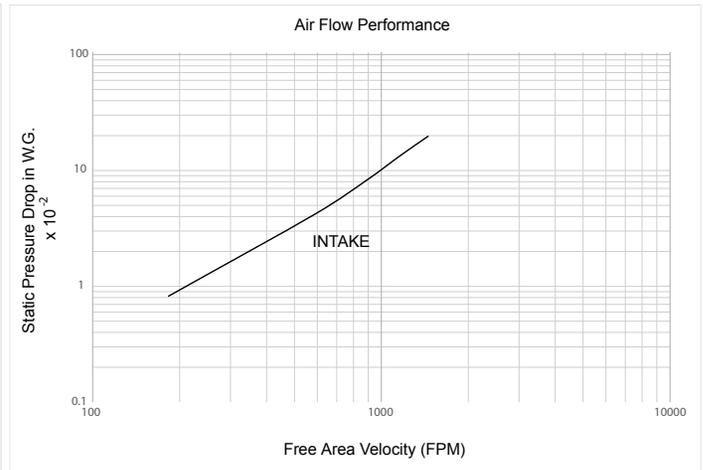
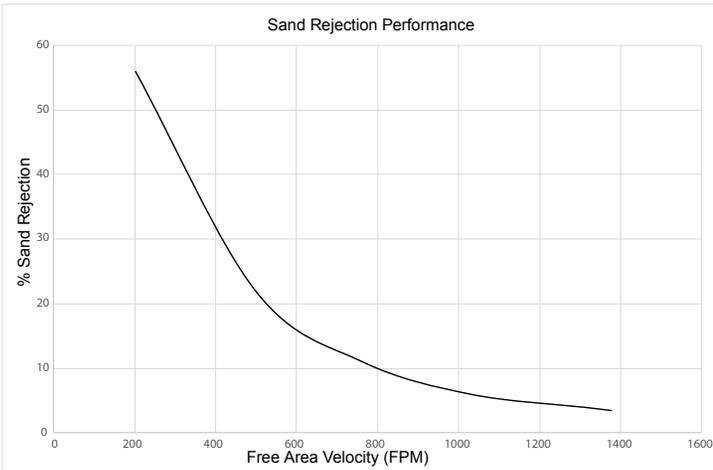
- Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM*A*STAR®) 2 coats by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry Meets AAMA-2604-04 Standards
- Kynar 500®** or **HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards **OPTIONAL OPTIONAL**
- Kynar 500®** or **HYLAR® 5000 (70% Tri-Escnt II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II** (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize 215 R-1 Class I** (AA-C22A41)(>0.7 mil)
- Integrat Color Anodize** (AA-C22A42)(>0.7 mil)
- Clear coat available for all above finishes.
- Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
- Kynar® 500 is a registered trademark of Arkema.
- ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
- ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



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MODEL STL 4.2 ULTRA LOW PRESSURE VERTICAL BLADE SAND TRAP LOUVER

Drawn By: DND	Approved BY: SB	REV. No.: 00	Date: February 2021	Cat ID: STL4.2	Page: 1/2
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SAND REJECTION PERFORMANCE

Free Area Velocity (fpm)	197	492	787	1083	1378
Effectiveness (%)	56	21.5	10.5	5	3
Penetration Class	D	D	D	D	D

Test Sample size is 48"x48" with a tolerance of +0, -0.25".
 Wind driven sand performance data is based on intake performance.
 Sand grade mass distribution per AMCA 511.



Central Ventilation Systems certifies that STL4.2 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The certified ratings seal applies to wind driven sand and air performance ratings.

Tested for wind driven sand rejection in accordance with AMCA Standard 500-L, Figure 5.12.

FREE AREA CHART (SQF)

Louver Height (in)	Louver Width (in)																		Louver Height (in)	
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114		120
12	0.19	0.31	0.42	0.53	0.65	0.76	0.88	0.99	1.11	1.22	1.34	1.45	1.57	1.68	1.80	1.91	2.02	2.14	2.25	12
18	0.33	0.53	0.73	0.92	1.12	1.32	1.52	1.72	1.91	2.11	2.31	2.51	2.70	2.90	3.10	3.30	3.50	3.69	3.89	18
24	0.47	0.75	1.03	1.31	1.59	1.88	2.16	2.44	2.72	3.00	3.28	3.56	3.84	4.13	4.41	4.69	4.97	5.25	5.53	24
30	0.61	0.97	1.34	1.70	2.07	2.43	2.80	3.16	3.52	3.89	4.25	4.62	4.98	5.35	5.71	6.08	6.44	6.81	7.17	30
36	0.75	1.19	1.64	2.09	2.54	2.99	3.43	3.88	4.33	4.78	5.23	5.67	6.12	6.57	7.02	7.47	7.91	8.36	8.81	36
42	0.89	1.42	1.95	2.48	3.01	3.54	4.07	4.60	5.14	5.67	6.20	6.73	7.26	7.79	8.32	8.85	9.39	9.92	10.45	42
48	1.02	1.64	2.25	2.87	3.48	4.10	4.71	5.33	5.94	6.56	7.17	7.78	8.40	9.01	9.63	10.24	10.86	11.47	12.09	48
54	1.16	1.86	2.56	3.26	3.95	4.65	5.35	6.05	6.75	7.44	8.14	8.84	9.54	10.24	10.93	11.63	12.33	13.03	13.73	54
60	1.30	2.08	2.86	3.65	4.43	5.21	5.99	6.77	7.55	8.33	9.11	9.90	10.68	11.46	12.24	13.02	13.80	14.58	15.36	60
66	1.44	2.31	3.17	4.03	4.90	5.76	6.63	7.49	8.36	9.22	10.09	10.95	11.82	12.68	13.55	14.41	15.27	16.14	17.00	66
72	1.58	2.53	3.48	4.42	5.37	6.32	7.27	8.22	9.16	10.11	11.06	12.01	12.95	13.90	14.85	15.80	16.75	17.69	18.64	72
78	1.72	2.75	3.78	4.81	5.84	6.88	7.91	8.94	9.97	11.00	12.03	13.06	14.09	15.13	16.16	17.19	18.22	19.25	20.28	78
84	1.86	2.97	4.09	5.20	6.32	7.43	8.55	9.66	10.77	11.89	13.00	14.12	15.23	16.35	17.46	18.58	19.69	20.81	21.92	84
90	2.00	3.19	4.39	5.59	6.79	7.99	9.18	10.38	11.58	12.78	13.98	15.17	16.37	17.57	18.77	19.97	21.16	22.36	23.56	90
96	2.14	3.42	4.70	5.98	7.26	8.54	9.82	11.10	12.39	13.67	14.95	16.23	17.51	18.79	20.07	21.35	22.64	23.92	25.20	96
102	2.27	3.64	5.00	6.37	7.73	9.10	10.46	11.83	13.19	14.56	15.92	17.28	18.65	20.01	21.38	22.74	24.11	25.47	26.84	102
108	2.41	3.86	5.31	6.76	8.20	9.65	11.10	12.55	14.00	15.44	16.89	18.34	19.79	21.24	22.68	24.13	25.58	27.03	28.48	108
114	2.55	4.08	5.61	7.15	8.68	10.21	11.74	13.27	14.80	16.33	17.86	19.40	20.93	22.46	23.99	25.52	27.05	28.58	30.11	114
120	2.69	4.31	5.92	7.53	9.15	10.76	12.38	13.99	15.61	17.22	18.84	20.45	22.07	23.68	25.30	26.91	28.52	30.14	31.75	120

SUGGESTED SPECIFICATION

"Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary with fixed vertical blades formed or extruded and contained within a 3" frame. Where Duct Connection neck or filter rack is installed, frame shall be extended on the discharge side. Louver components (heads, jambs, sills, blades and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30lbs. per sqf."

"Published louver performance bearing the AMCA Certified Ratings Seal for Air Performance & Wind Driven Sand must be submitted for approval prior to fabrication and must demonstrate pressure drop less than the CVS model specified. "

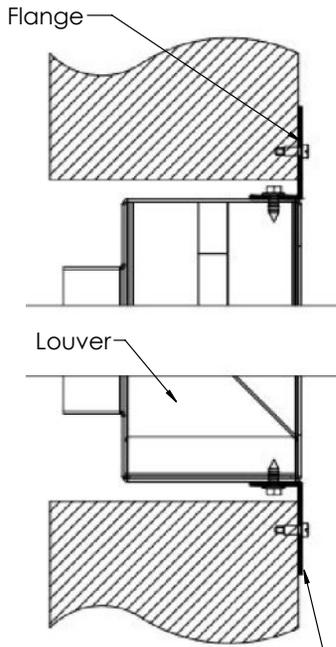
"Louver shall be model STL 4.2, 6063-T6 extruded Aluminum construction as follows:
 Frame: 3" Deep, 0.08" nominal wall thickness with sand discharge points at the bottom
 Blades: 0.06" nominal wall thickness, blades are spaced at 2" apart"

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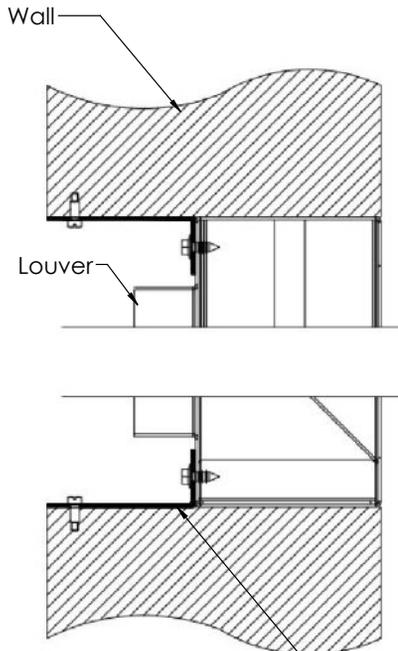
SAND TRAP LOUVER INSTALLATION INSTRUCTIONS

Flange Mount



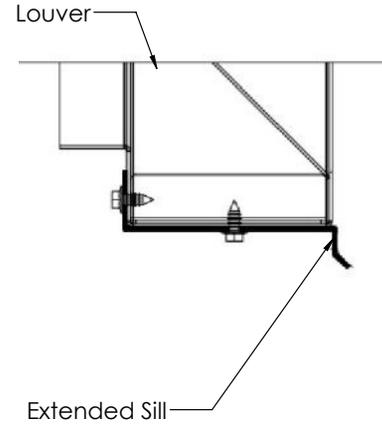
Attach louver sections together with L-Angle using suitable fasteners. **Fasteners are not supplied by CVS**

Masonry Wall

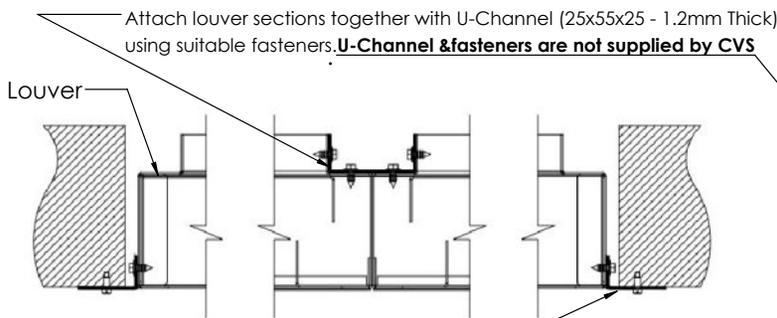


Attach louver sections together with L-Angle using suitable fasteners. **Fasteners are not supplied by CVS**

Extended Sill

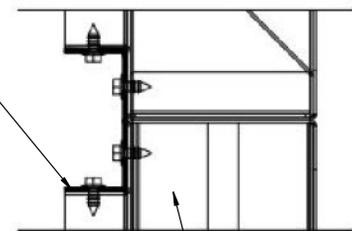


Multi-Section Assembly Plan View



Attach louver sections together with L-Angle thru suitable fasteners. **Not supplied by CVS**

Multi-Section Assembly Elevation View



Notes:

- * **All the installation accessories and fasteners are not provided by CVS.**
- * Prior to installation, if the unit is to be stored on site, ensure it is stored in a clean & dry environment.
- * Don't stack excessive numbers of units as the weight of the stack may damage them.
- * Prior to installation, remove all packaging from the units.
- * **Central Ventilation Systems (CVS)** reserves the right to change specifications without notice.

Product Range

- ▶ Fire-Resisting Ductwork (BS & EN)
- ▶ Fire-rated Insulation (ASTM & UL)
- ▶ Sound Attenuators (ASTM & BS)
- ▶ VAV Boxes (AHRI)
- ▶ Life Safety Dampers (UL)
- ▶ Control Dampers (AMCA & BS)
- ▶ Access Doors (BS & EN)
- ▶ Louvers (AMCA)
- ▶ Smoke Exhaust, Building, Car Park & Tunnel Ventilation Fans (AMCA & EN)
- ▶ Domestic and Industrial Ventilation Fans
- ▶ AHU, FAHU, FCU, RTU, ERV & Ecology Units (Eurovent, TUV & AHRI)
- ▶ Electrostatic Precipitators (ESPs) & UL Listed Air Filters (UL)

Our Brands



Control Dampers, Louvers,
Sound Attenuators & VAV Boxes



Non-Coated Fire-Resisting Ductwork
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CVS Arabia L.L.C

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Dammam 31952,
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