

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)

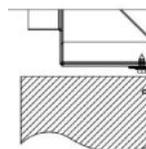
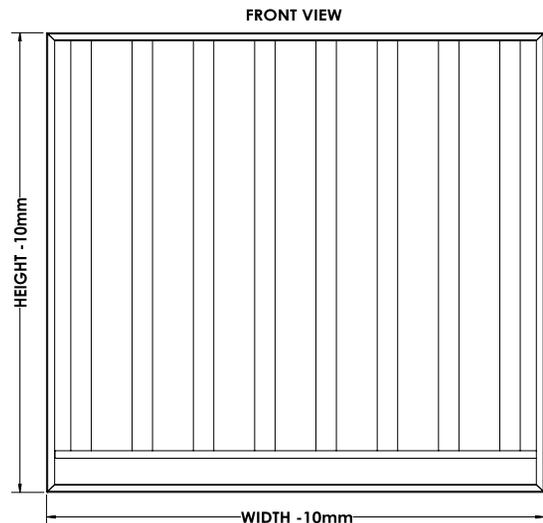
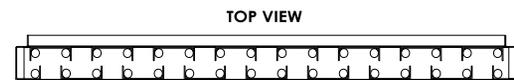
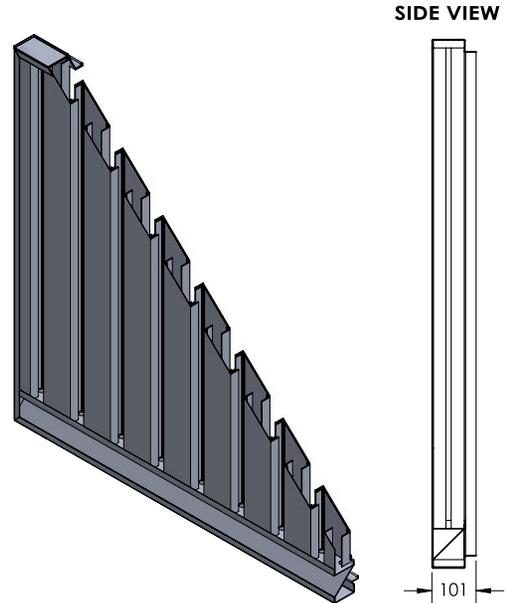
OPTIONS:

- 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)

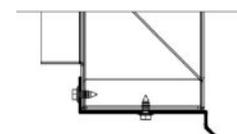


AVAILABLE FINISHES:

- 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

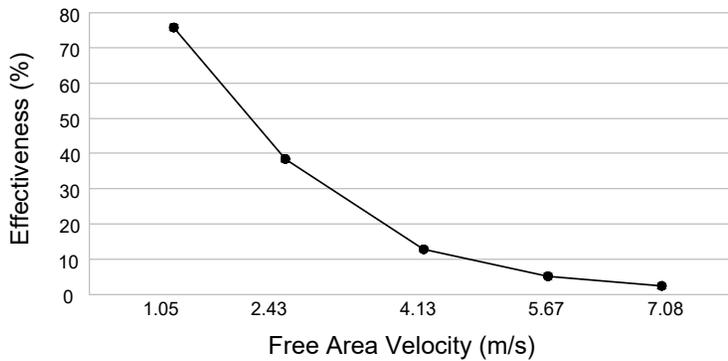


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MODEL STL 4.2-XT ULTRA LOW PRESSURE VERTICAL BLADE SAND TRAP LOUVER

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



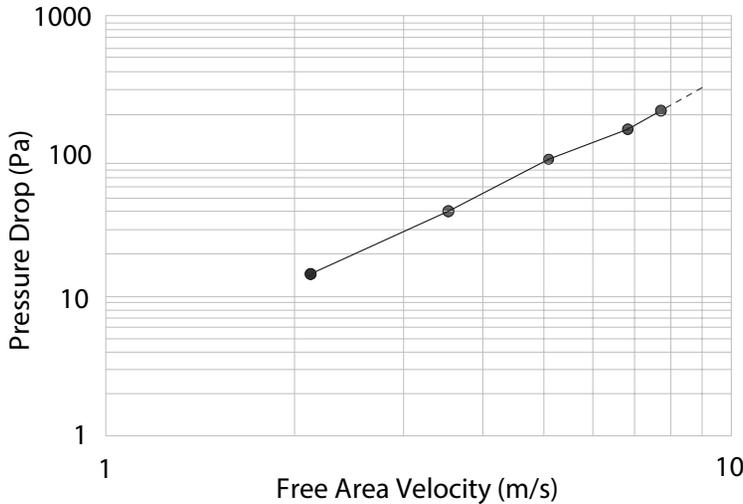
SAND REJECTION PERFORMANCE

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

Test No	Airflow Rate m³/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 (m³/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 Badr-Asfour 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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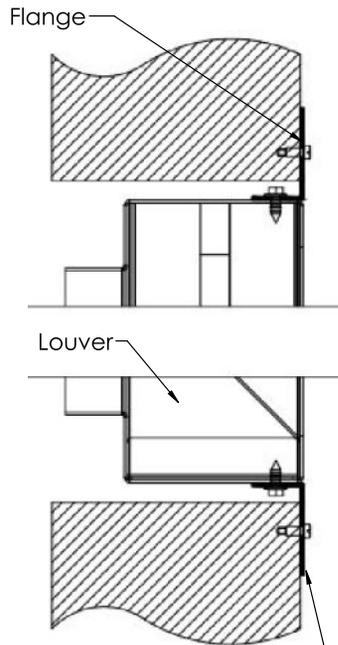
FREE AREA CHART STL 4.2-XT

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	1.31	1.48	1.65	1.82	1.99	2.16	2.33	2.50	2.67	2.84	3.01	3.18
18 in.	0.17	0.51	0.86	1.21	1.56	1.91	2.26	2.61	2.96	3.31	3.66	4.01	4.36	4.71	5.06	5.41	5.76	6.11	6.46
24 in.	0.25	0.76	1.27	1.78	2.29	2.80	3.31	3.82	4.33	4.84	5.35	5.86	6.37	6.88	7.39	7.90	8.41	8.92	9.43
30 in.	0.33	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	4.48	5.47	6.46	7.45	8.44	9.43	10.42	11.41	12.40	13.39	14.38	15.37	16.36	17.35	18.34
48 in.	0.58	1.74	2.91	4.07	5.23	6.39	7.55	8.71	9.87	11.03	12.19	13.35	14.51	15.67	16.83	17.99	19.15	20.31	21.47
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	8.27	10.86	13.45	16.04	18.63	21.22	23.81	26.40	28.99	31.58	34.17	36.76	39.35	41.94	44.53	47.12
96 in.	1.24	3.71	6.19	8.86	11.63	14.40	17.17	19.94	22.71	25.48	28.25	31.02	33.79	36.56	39.33	42.10	44.87	47.64	50.41
102 in.	1.32	3.96	6.60	9.57	12.56	15.54	18.43	21.32	24.21	27.10	30.00	32.89	35.78	38.67	41.56	44.45	47.34	50.23	53.12
108 in.	1.40	4.20	7.01	10.30	13.61	16.72	19.83	22.94	26.05	29.16	32.27	35.38	38.49	41.60	44.71	47.82	50.93	54.04	57.15
114 in.	1.48	4.45	7.42	11.11	14.83	18.16	21.49	24.82	28.15	31.48	34.81	38.14	41.47	44.80	48.13	51.46	54.79	58.12	61.45
120 in.	1.57	4.70	7.83	11.92	16.14	19.65	23.16	26.49	29.82	33.15	36.48	39.81	43.14	46.47	49.80	53.13	56.46	59.79	63.12
126 in.	1.65	4.95	8.26	12.73	17.55	21.26	24.77	28.00	31.23	34.46	37.69	40.92	44.15	47.38	50.61	53.84	57.07	60.30	63.53
132 in.	1.73	5.20	8.67	13.54	18.96	22.67	26.08	29.29	32.50	35.71	38.94	42.17	45.40	48.63	51.86	55.09	58.32	61.55	64.78
138 in.	1.81	5.45	9.08	14.35	20.17	24.08	27.49	30.68	33.81	37.02	40.23	43.44	46.65	49.86	53.07	56.28	59.49	62.70	65.91
144 in.	1.89	5.70	9.49	15.16	21.38	25.49	28.88	32.00	35.11	38.32	41.53	44.74	47.95	51.16	54.37	57.58	60.79	64.00	67.21
150 in.	1.97	5.95	9.90	15.97	22.59	26.90	30.09	33.20	36.32	39.53	42.74	45.95	49.16	52.37	55.58	58.79	62.00	65.21	68.42
156 in.	2.05	6.20	10.31	16.78	23.80	28.31	31.50	34.61	37.72	40.93	44.14	47.35	50.56	53.77	56.98	60.19	63.40	66.61	69.82
162 in.	2.13	6.45	10.72	17.59	25.01	29.72	32.91	36.01	39.13	42.34	45.55	48.76	51.97	55.18	58.39	61.60	64.81	68.02	71.23
168 in.	2.21	6.70	11.13	18.40	26.22	31.13	34.32	37.42	40.54	43.75	46.96	50.17	53.38	56.59	59.80	63.01	66.22	69.43	72.64
174 in.	2.29	6.95	11.54	19.21	27.43	32.54	35.73	38.83	42.05	45.26	48.47	51.68	54.89	58.10	61.31	64.52	67.73	70.94	74.15
180 in.	2.37	7.20	11.95	20.02	28.64	33.95	37.14	40.24	43.46	46.67	49.88	53.09	56.30	59.51	62.72	65.93	69.14	72.35	75.56
186 in.	2.45	7.45	12.36	20.83	29.85	35.36	38.55	41.65	44.87	48.09	51.30	54.51	57.72	60.93	64.14	67.35	70.56	73.77	76.98
192 in.	2.53	7.70	12.77	21.64	31.06	36.77	39.96	42.86	46.08	49.29	52.50	55.71	58.92	62.13	65.34	68.55	71.76	74.97	78.18
198 in.	2.61	7.95	13.18	22.45	32.27	38.18	41.27	44.08	47.29	50.50	53.71	56.92	60.13	63.34	66.55	69.76	72.97	76.18	79.39
204 in.	2.69	8.20	13.59	23.26	33.48	39.59	42.68	45.49	48.70	51.91	55.12	58.33	61.54	64.75	67.96	71.17	74.38	77.59	80.80
210 in.	2.77	8.45	14.00	24.07	34.69	40.90	43.89	46.90	50.11	53.32	56.53	59.74	62.95	66.16	69.37	72.58	75.79	79.00	82.21
216 in.	2.85	8.70	14.41	24.88	35.90	42.11	45.30	48.51	51.72	54.93	58.14	61.35	64.56	67.77	70.98	74.19	77.40	80.61	83.82
222 in.	2.93	8.95	14.82	25.69	37.11	43.32	46.71	49.92	53.13	56.34	59.55	62.76	65.97	69.18	72.39	75.60	78.81	82.02	85.23
228 in.	3.01	9.20	15.23	26.50	38.32	44.53	48.12	51.33	54.54	57.75	60.96	64.17	67.38	70.59	73.80	77.01	80.22	83.43	86.64
234 in.	3.09	9.45	15.64	27.31	39.53	45.74	49.53	52.74	55.95	59.16	62.37	65.58	68.79	72.00	75.21	78.42	81.63	84.84	88.05
240 in.	3.17	9.70	16.05	28.12	40.74	46.95	50.94	53.95	57.16	60.37	63.58	66.79	70.00	73.21	76.42	79.63	82.84	86.05	89.26
246 in.	3.25	9.95	16.46	28.93	41.95	48.16	52.35	55.36	58.57	61.78	64.99	68.20	71.41	74.62	77.83	81.04	84.25	87.46	90.67
252 in.	3.33	10.20	16.87	29.74	43.16	49.37	53.76	56.77	59.98	63.19	66.40	69.61	72.82	76.03	79.24	82.45	85.66	88.87	92.08
258 in.	3.41	10.45	17.28	30.55	44.37	50.58	55.17	58.18	61.39	64.60	67.81	71.02	74.23	77.44	80.65	83.86	87.07	90.28	93.49
264 in.	3.49	10.70	17.69	31.36	45.58	51.79	56.58	59.59	62.80	66.01	69.22	72.43	75.64	78.85	82.06	85.27	88.48	91.69	94.90
270 in.	3.57	10.95	18.10	32.17	46.79	53.00	57.99	60.90	64.01	67.22	70.43	73.64	76.85	80.06	83.27	86.48	89.69	92.90	96.11
276 in.	3.65	11.20	18.51	32.98	48.00	54.21	59.40	62.41	65.62	68.83	72.04	75.25	78.46	81.67	84.88	88.09	91.30	94.51	97.72
282 in.	3.73	11.45	18.92	33.79	49.21	55.42	60.81	63.82	67.03	70.24	73.45	76.66	79.87	83.08	86.29	89.50	92.71	95.92	99.13
288 in.	3.81	11.70	19.33	34.60	50.42	56.63	62.22	65.23	68.44	71.65	74.86	78.07	81.28	84.49	87.70	90.91	94.12	97.33	100.54
294 in.	3.89	11.95	19.74	35.41	51.63	57.84	63.63	66.64	69.85	73.06	76.27	79.48	82.69	85.90	89.11	92.32	95.53	98.74	101.95
300 in.	3.97	12.20	20.15	36.22	52.84	59.05	64.84	67.85	71.06	74.27	77.48	80.69	83.90	87.11	90.32	93.53	96.74	100.00	103.21
306 in.	4.05	12.45	20.56	37.03	54.05	60.26	66.05	69.06	72.27	75.48	78.69	81.90	85.11	88.32	91.53	94.74	97.95	101.16	104.37
312 in.	4.13	12.70	20.97	37.84	55.26	61.47	67.26	70.47	73.68	76.89	80.10	83.31	86.52	89.73	92.94	96.15	99.36	102.57	105.78
318 in.	4.21	12.95	21.38	38.65	56.47	62.68	68.47	71.68	74.89	78.10	81.31	84.52	87.73	90.94	94.15	97.36	100.57	103.78	107.00
324 in.	4.29	13.20	21.79	39.46	57.68	63.89	69.66	72.89	76.10	79.31	82.52	85.73	88.94	92.15	95.36	98.57	101.78	105.00	108.21
330 in.	4.37	13.45	22.20	40.27	58.89	65.10	70.87	74.00	77.21	80.42	83.63	86.84	90.05	93.26	96.47	99.68	102.89	106.11	109.32
336 in.	4.45	13.70	22.61	41.08	60.10	66.31	72.08	75.21	78.42	81.63	84.84	88.05	91.26	94.47	97.68	100.89	104.10	107.31	110.53
342 in.	4.53	13.95	23.02	41.89	61.31	67.52	73.29	76.43	79.64	82.85	86.06	89.27	92.48	95.69	98.90	102.11	105.32	108.53	111.74
348 in.	4.61	14.20	23.43	42.70	62.52	68.73	74.50	77.64	80.85	84.06	87.27	90.48	93.69	96.90	100.11	103.32	106.53	109.74	112.95
354 in.	4.69	14.45	23.84	43.51	63.73	69.94	75.71	78.85	82.06	85.27	88.48	91.69	94.90	98.11	101.32	104.53	107.74	110.95	114.16
360 in.	4.77	14.70	24.25	44.32	64.94	71.15	76.92	80.06	83.27	86.48	89.69	92.90	96.11	99.32	102.53	105.74	108.95	112.16	115.37



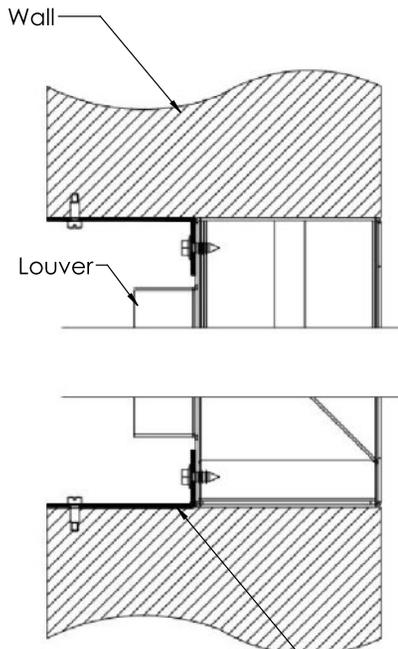
SAND TRAP LOUVER INSTALLATION INSTRUCTIONS

Flange Mount



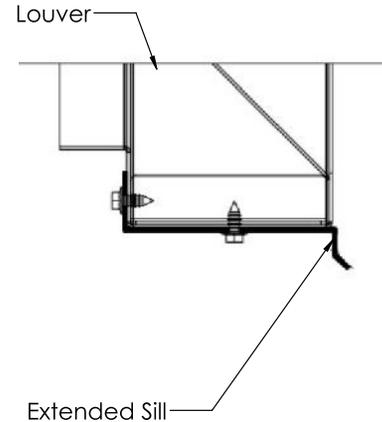
Attach louver sections together with L-Angle using suitable fasteners. **Fasteners are not supplied by CVS**

Masonry Wall

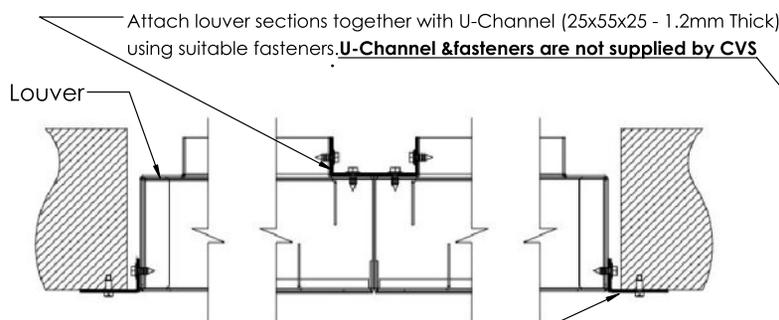


Attach louver sections together with L-Angle using suitable fasteners. **Fasteners are not supplied by CVS**

Extended Sill

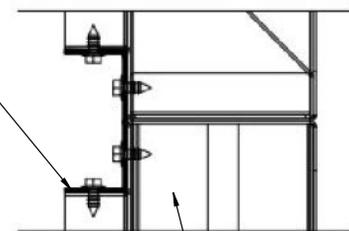


Multi-Section Assembly Plan View



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.

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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



Non-Coated Fire-Resisting Ductwork
& Life Safety Dampers



Coated Fire-Resisting
Ductwork



Control Dampers, Louvers,
Sound Attenuators & VAV Boxes



Fire-rated Insulation

**Badr and Asfour
Company For Engineering
and Metal Industries**

Al Minya Industrial Zone,
Al Minya Governorate
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**Jamil Ali Nasser
Al-Zadjali
Factory for Industry**

2nd Industrial City,
Dammam 31952,
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**Central Ventilation System
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**Central Ventilation Systems
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