



Gulf Grilles Company (GGC)

شركة الخليج لفتحات التكييف المركزي

Sand Trap Louvers





Product Description

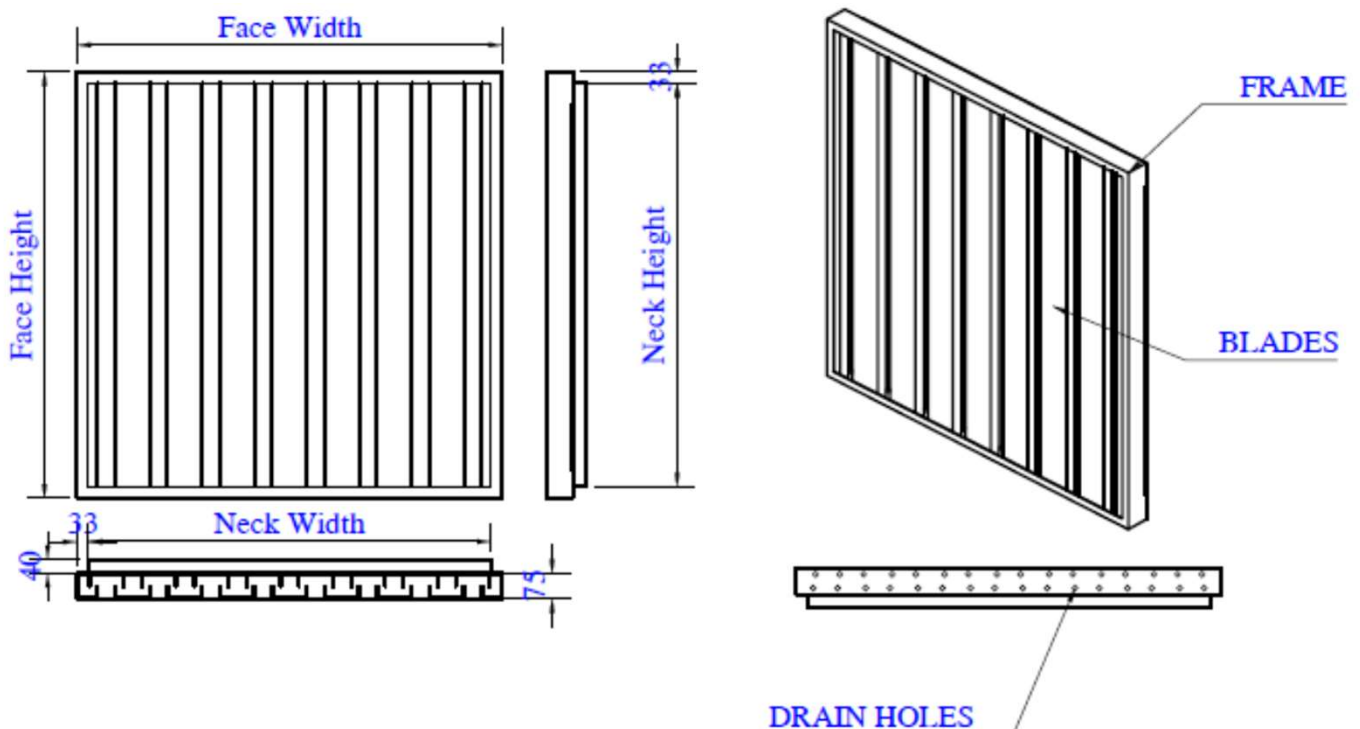
- Sand Trap Louvers (STLs) are mainly used for air ventilation in sandy areas to separate sand from intake air. Louver efficiency is related to the selected louver size with referring to the required amount of air that will pass through the louver free area.
- The frame and blades are extruded aluminum alloy and are polyester powder coated. Color provided as on request .
- The frame has a typical wall thickness of 5/64" and blades a thickness of 1/16".
- Provided with self emptying sand drain holes from the base.
- The blades are U shape - vertical type and spaced 2" (edge to edge).
- As an option, an expanded galvanized bird screen and aluminum filter can be attached to the interior face of the louver.
- Standard finish is white color for frame and blades. Painted under electrostatic polyester powder coated system. Other colors available on request. The polyester powder of highest quality are used to enhance the appearance of the units.
- **Size Ranges:**
Rectangular / Square Type (WxH):
 - A) Minimum Size: 8" x 8".
 - B) Maximum Size (Single Unit – without partitions): 160" x 88".
 - C) Larger Sizes: Fabricated in multiple units design, to be assembled at project site as requested.

Notes:-

- 1) **STLs** are fabricated in Galvanized, stainless steel or aluminum sheets construction on request where required.
- 2) **STLs** are provided with additional accessories on request (Volume Damper, Fire/Smoke Damper, Filters, Bird/Insect Screen) and to be inserted inside sleeve that is combined with louver. Sleeve is provided with multiple connection options as on request:
 - A) TDC Flange – 1.38" (35mm).
 - B) Plain "S" Slip & C Drive Slip Joint.
 - C) Angle Bar – 1.97" x 1.97" x 0.197" (50x50x5mm).
 - D) without connection accessories, where required.
- 3) **STLs** are provided with sand chute on request.
- 4) **STLs** that are fabricated with sizes larger than 160" x 88" (in width, height or both) will may be fabricated in multiple section design and provided with sand chute when it is divided in height into multiple units for sand release.
Louver parts will be assembled from back side to be installed as a single unit.
- 5) **STLs** are provided with hidden dividers / supports on request.
- 6) **STLs** are provided with Fire Rated Paint or additional accessories on request.

Listed Models and Design Details

- **WST5-X**: Sand Trap Louver





Free Area Table (Sand Trap Louver, Model: WST5-X)

- Listed sizes in below table are louver face size (Outer Dimension).
- Tested louver sample size is 48"x48" (1219x1219mm)(Face Size).

Sand Trap Louver - Free Area (m²)

Width (mm)	Height (mm)								
	203	508	813	1118	1219	1524	1829	2134	2235
203	0.003	0.008	0.014	0.020	0.022	0.028	0.034	0.039	0.041
508	0.017	0.055	0.093	0.131	0.143	0.181	0.219	0.257	0.269
813	0.032	0.101	0.171	0.241	0.264	0.334	0.404	0.474	0.497
1118	0.046	0.148	0.250	0.352	0.385	0.487	0.589	0.691	0.725
1219	0.048	0.155	0.262	0.369	0.404	0.511	0.617	0.724	0.760
1524	0.062	0.199	0.337	0.474	0.519	0.657	0.794	0.931	0.977
1829	0.076	0.244	0.411	0.579	0.635	0.802	0.970	1.138	1.194
2134	0.090	0.288	0.486	0.684	0.750	0.948	1.147	1.345	1.411
2235	0.097	0.310	0.524	0.737	0.808	1.021	1.235	1.448	1.519
2438	0.104	0.334	0.564	0.793	0.870	1.099	1.329	1.559	1.635
2743	0.118	0.380	0.642	0.904	0.991	1.253	1.514	1.776	1.863
3048	0.133	0.427	0.721	1.015	1.112	1.406	1.700	1.993	2.091
3353	0.147	0.473	0.799	1.125	1.233	1.559	1.885	2.211	2.319
3658	0.162	0.520	0.878	1.236	1.354	1.712	2.070	2.428	2.546
3962	0.176	0.566	0.956	1.345	1.474	1.864	2.254	2.643	2.772
4064	0.179	0.576	0.972	1.369	1.500	1.897	2.293	2.690	2.821

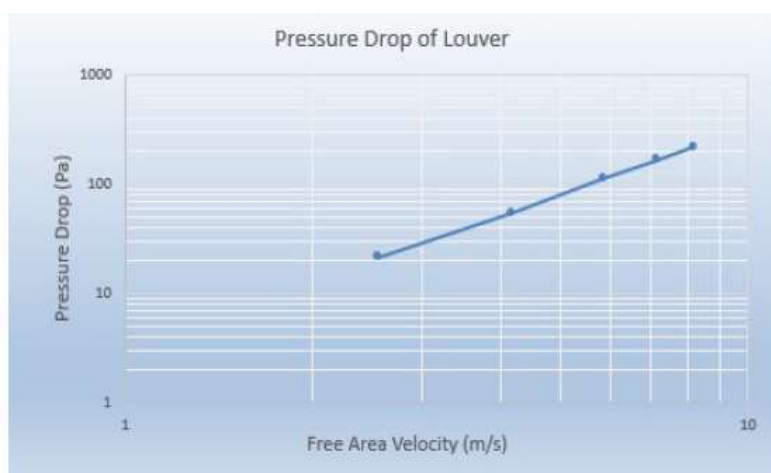


PERFORMANCE

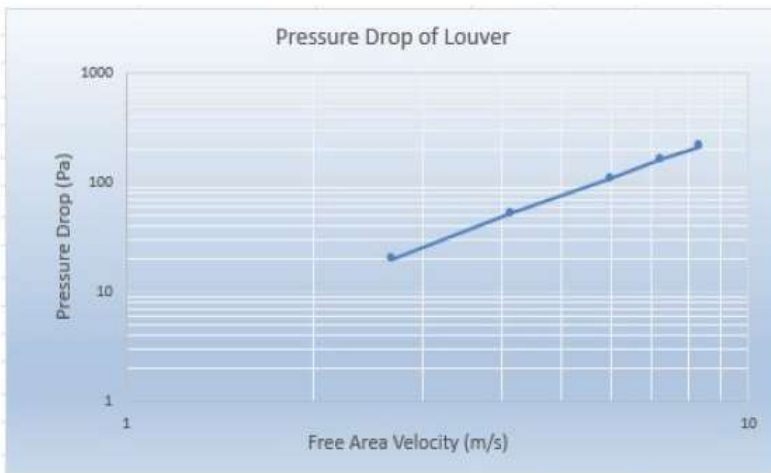
Test Information:

- Tested for air performance in accordance with ANSI / AMCA Standard 500-L-12 (Pressure Drop), Figure 5.5.
- Tested louver sample size is 48"x48" (1219x1219mm)(Face Size).
- The mentioned maximum ΔP s for a specified airflow rate is at standard air density.

Intake Air Performance	
Free Area Velocity (m/s)	ΔP (Pa)
2.55	21
4.19	55
5.88	113
7.13	166
8.20	218



Exhaust Air Performance	
Free Area Velocity (m/s)	ΔP (Pa)
2.67	20
4.16	53
6.03	110
7.24	163
8.38	213



Gulf Grilles Company (GGC) certifies that the Sand Trap louver shown herein is licensed to bear the AMCA Seal for Model WST5-X. 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 AMCA Certified Ratings Program Seal applies to Wind Driven Sand and Air Performance Ratings only.

Test Information

Tested for air performance in accordance with ANSI / AMCA Standard 500-L-12 (Pressure Drop), Figure 5.5.

Tested for Wind Driven Sand in accordance with ANSI / AMCA Standard 500-L-12 (Sand Rejection), Figure 5.12/6.3



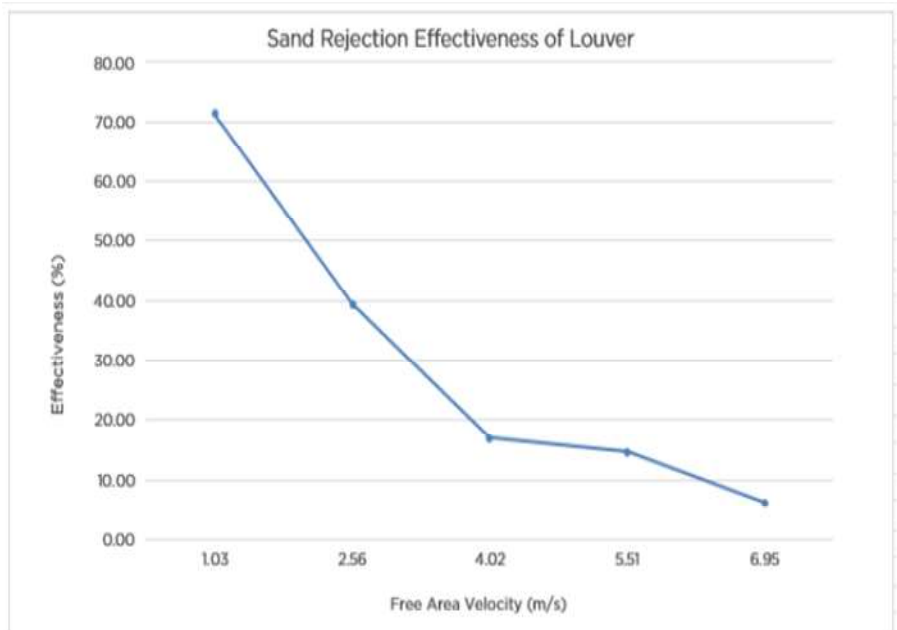
PERFORMANCE

Test Information:

- Tested for Wind Driven Sand in accordance with ANSI / AMCA Standard 500-L-12 (Sand Rejection), Figure 5.12/6.3.
- Grading of the sand used for wind driven sand performance tests was per ANSI/AMCA Standard 500-L .
- Sand Trap Louver is tested for sand rejection to examine the louver effectiveness and ability to reject airborne dry sand particles
- Tested louver sample size is 48"x48" (1219x1219mm)(Face Size).
- The sand grading used in this test was between 76 μm – 699 μm as per AMCA 500-L.
- Louver was subjected to wind driven sand at air velocity: 20-25 m/s

Sand Rejection Effectiveness of Sand Trap Louver

Free Area Velocity (m/s)	Louver Effectiveness %
1.03	71.29
2.56	39.41
4.02	16.94
5.51	14.60
6.95	6.15



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Tested for Wind Driven Sand in accordance with ANSI / AMCA Standard 500-L-12 (Sand Rejection), Figure 5.12/6.3