



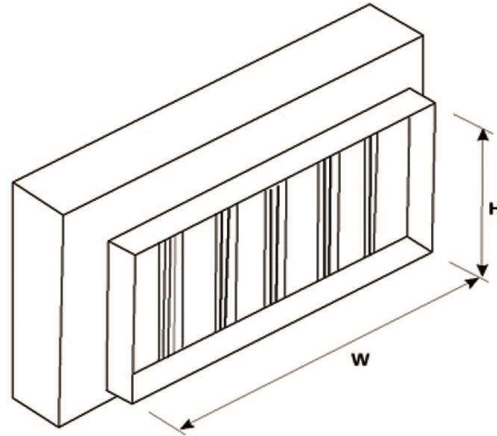
SAND TRAP LOUVER



(SARA- STL)



DIMENSIONS

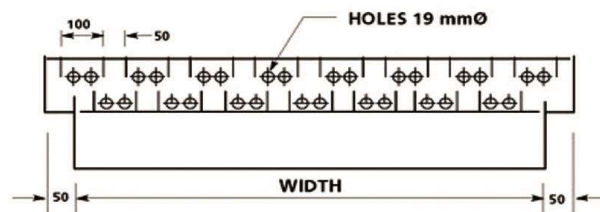
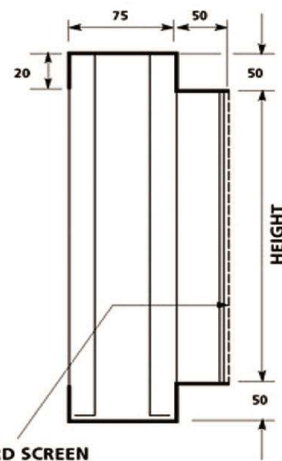
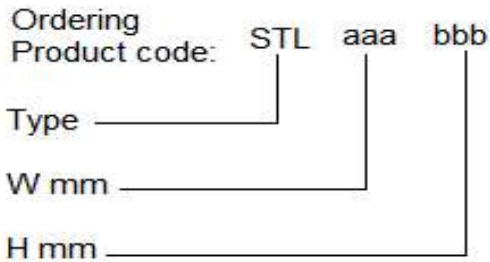


DESCRIPTION

Sand trap louver is used for separating sand from intake air Epoxy coated

- STL – GALV Sand trap louver (galv. steel)
- STL – Alum. Sand trap louver (alum. Steel)
- STL – SS Sand trap louver (stainless steel)

- Holes 19mm dia at bottom casing only
- Bird screen 12mm x 12mm x 1mm as a standard, other sizes available on request



LEGEND & NOTES

Note:
 Fabricated as per customer request, when ordering please specify the size
 Available with aluminium fitters and wire mes

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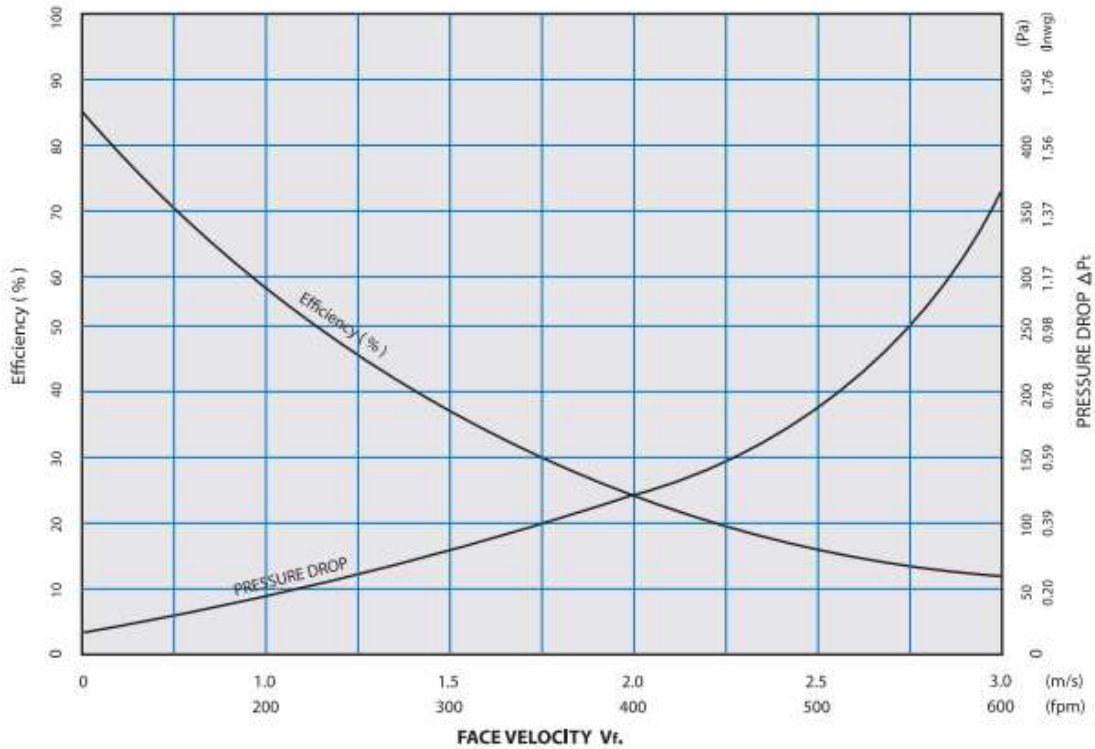


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Engineering and Performance Data

Air Flow Resistance Diagram (All Models) Pressure Drop (ΔP_t), Efficiency (%) versus Face Velocity (V_f)



To Calculate The Air Flow Rate (All Models)

Simply the Air Flow Rate in (L/S) or (CFM) can be calculated using any of the following equations :

$$\text{Air Flow Rate in (L/S)} = 0.33 \times \frac{L \text{ (mm)} \times H \text{ (mm)} \times V_f \text{ (m/s)}}{1000}$$

or

$$\text{Air Flow Rate in (CFM)} = 0.33 \times \frac{L \text{ (inch)} \times H \text{ (inch)} \times V_f \text{ (fpm)}}{151}$$

L : Louver Length.
H : Louver Height.

Filtration Efficiency :

The filtration performance is dependant on the dust type and the velocity of the air, thus :

Particle Size Range	Filtration Efficiency in (%)	
	@ 1.0 m/s	@ 2.0 m/s
350 – 700	90	70
75 – 700	60	approx. 30

For normal operation conditions, Sand Trap Louvers used for natural ventilation purpose are rated at a recommended Face velocity not exceeding 1.0 – 1.5 m/s.

Note : For quick selection, some selected sizes of Louvers at specific Face Velocities (1.0 & 1.5 m/s) have been applied to the above equations and tabulated in the next two pages in the form of CFM values (table No. SL-01 & 02) in order to cover your needs of sizing selection.

Engineering and Performance Data

TABLE SL-01

Air Flow Rate Values In CFM For Selected Sizes of Sand Trap Louvers @ V f. = 1.0 (m/s)																
L	H	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
100		7														
150		10														
200		14	28													
250		17	35													
300		21	42	63												
350		24	49	73												
400		28	56	84	112											
450		31	63	94	126											
500		35	70	105	140	175										
550		38	77	115	154	192										
600		42	84	126	168	210	252									
650		45	91	136	182	227	273									
700		49	98	147	196	245	294	343								
750		52	105	157	210	262	315	367								
800		56	112	168	224	280	336	392	448							
850		59	119	178	238	297	357	416	476							
900		63	126	189	252	315	378	441	503	566						
950		66	133	199	266	332	399	465	531	598						
1000		70	140	210	280	350	420	489	559	629	699					
1050		73	147	220	294	367	441	514	587	661	734					
1100		77	154	231	308	385	462	538	615	692	769	846				
1150		80	161	241	322	402	482	563	643	724	804	885				
1200		84	168	252	336	420	503	587	671	755	839	923	1007			
1250		87	175	262	350	437	524	612	699	787	874	961	1049			
1300		91	182	273	364	455	545	636	727	818	909	1000	1091	1182		
1350		94	189	283	378	472	566	661	755	850	944	1038	1133	1227		
1400		98	196	294	392	489	587	685	783	881	979	1077	1175	1273	1371	
1450		101	203	304	406	507	608	710	811	913	1014	1115	1217	1318	1420	
1500		105	210	315	420	524	629	734	839	944	1049	1154	1259	1364	1468	1573
1550		108	217	325	434	542	650	759	867	975	1084	1192	1301	1409	1517	1626
1600		112	224	336	448	559	671	783	895	1007	1119	1231	1343	1454	1566	1678
1650		115	231	346	462	577	692	808	923	1038	1154	1269	1385	1500	1615	1731
1700		119	238	357	476	594	713	832	951	1070	1189	1308	1427	1545	1664	1783
1750		122	245	367	489	612	734	857	979	1101	1224	1346	1468	1591	1713	1836
1800		126	252	378	503	629	755	881	1007	1133	1259	1385	1510	1636	1762	1888
1850		129	259	388	517	647	776	906	1035	1164	1294	1423	1552	1682	1811	1940
1900		133	266	399	531	664	797	930	1063	1196	1329	1461	1594	1727	1860	1993
1950		136	273	409	545	682	818	955	1091	1227	1364	1500	1636	1773	1909	2045
2000		140	280	420	559	699	839	979	1119	1259	1399	1538	1678	1818	1958	2098

- L & H Dimensions are in mm.
- Damper at full open position (if any).

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Engineering and Performance Data

TABLE SL-02

Air Flow Rate Values In CFM For Selected Sizes of Sand Trap Louvers @ V _r = 1.5 (m/s)																
L	H	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
100	10															
150	16															
200	21	42														
250	26	52														
300	31	63	94													
350	37	73	110													
400	42	84	126	168												
450	47	94	142	189												
500	52	105	157	210	262											
550	58	115	173	231	288											
600	63	126	189	252	315	378										
650	68	136	205	273	341	409										
700	73	147	220	294	367	441	514									
750	79	157	236	315	393	472	551									
800	84	168	252	336	420	503	587	671								
850	89	178	267	357	446	535	624	713								
900	94	189	283	378	472	566	661	755	850							
950	100	199	299	399	498	598	698	797	897							
1000	105	210	315	420	524	629	734	839	944	1049						
1050	110	220	330	441	551	661	771	881	991	1101						
1100	115	231	346	462	577	692	808	923	1038	1154	1269					
1150	121	241	362	482	603	724	844	965	1086	1206	1327					
1200	126	252	378	503	629	755	881	1007	1133	1259	1385	1510				
1250	131	262	393	524	656	787	918	1049	1180	1311	1442	1573				
1300	136	273	409	545	682	818	955	1091	1227	1364	1500	1636	1773			
1350	142	283	425	566	708	850	991	1133	1274	1416	1558	1699	1841			
1400	147	294	441	587	734	881	1028	1175	1322	1468	1615	1762	1909	2056		
1450	152	304	456	608	760	913	1065	1217	1369	1521	1673	1825	1977	2129		
1500	157	315	472	629	787	944	1101	1259	1416	1573	1731	1888	2045	2203	2360	
1550	163	325	488	650	813	975	1138	1301	1463	1626	1788	1951	2114	2276	2439	
1600	168	336	503	671	839	1007	1175	1343	1510	1678	1846	2014	2182	2350	2517	
1650	173	346	519	692	865	1038	1211	1385	1558	1731	1904	2077	2250	2423	2596	
1700	178	357	535	713	892	1070	1248	1427	1605	1783	1961	2140	2318	2496	2675	
1750	184	367	551	734	918	1101	1285	1468	1652	1836	2019	2203	2386	2570	2753	
1800	189	378	566	755	944	1133	1322	1510	1699	1888	2077	2266	2454	2643	2832	
1850	194	388	582	776	970	1164	1358	1552	1746	1940	2135	2329	2523	2717	2911	
1900	199	399	598	797	996	1196	1395	1594	1794	1993	2192	2392	2591	2790	2989	
1950	205	409	614	818	1023	1227	1432	1636	1841	2045	2250	2454	2659	2864	3068	
2000	210	420	629	839	1049	1259	1468	1678	1888	2098	2308	2517	2727	2937	3147	

- L & H Dimensions are in mm.
- Damper at full open position (if any).

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