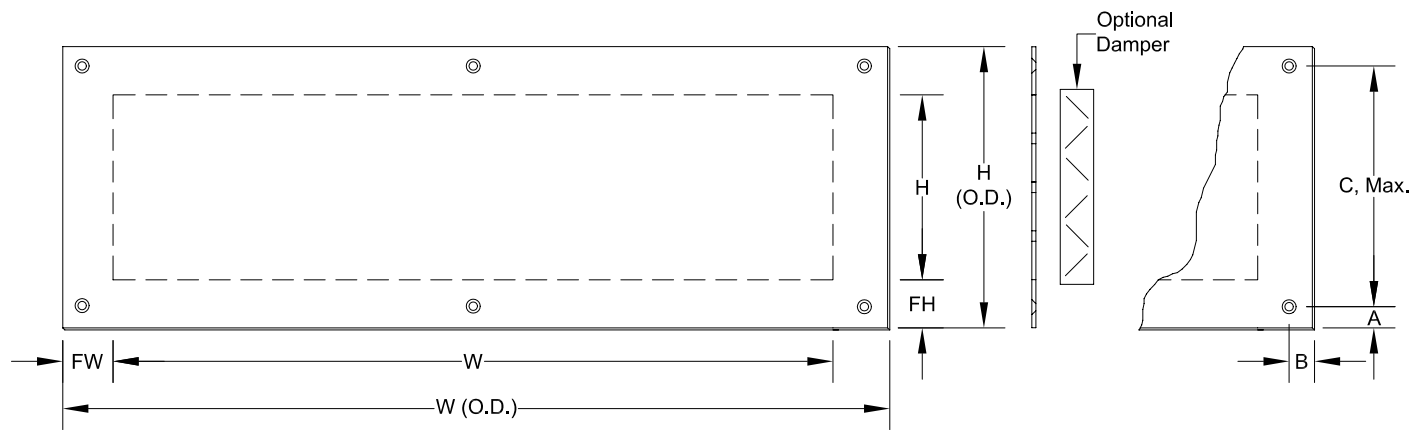


PATTERN SA031 ARCHITECTURAL STAMPED GRILLE



PATTERN SA031

5/16" ROUND HOLES, 7/16" O.C., STAGGERED PATTERN

46% OPEN

NO. OF HOLES	W INCHES	H INCHES	NO. OF HOLES	W INCHES	H INCHES	NO. OF HOLES	W INCHES	H INCHES	NO. OF HOLES	W INCHES	H INCHES
1	0.312	0.312	11	4.682	4.097	21	9.052	7.882	31	13.422	11.667
2	0.749	0.691	12	5.119	4.476	22	9.489	8.261	32	13.859	12.046
3	1.186	1.069	13	5.556	4.854	23	9.926	8.639	33	14.296	12.424
4	1.623	1.448	14	5.993	5.233	24	10.363	9.018	34	14.733	12.803
5	2.060	1.826	15	6.430	5.611	25	10.800	9.396	35	15.170	13.181
6	2.497	2.205	16	6.867	5.990	26	11.237	9.775	36	15.607	13.560
7	2.934	2.583	17	7.304	6.368	27	11.674	10.153	37	16.044	13.938
8	3.371	2.962	18	7.741	6.747	28	12.111	10.532	38	16.481	14.317
9	3.808	3.340	19	8.178	7.125	29	12.548	10.910	39	16.918	14.695
10	4.245	3.719	20	8.615	7.504	30	12.985	11.289	40	17.355	15.074

Qty.	O.D. Size W x H	Duct Size W x H	Pattern Size W x H	No. of Patterns W x H	Material	Thickness

Minimum Flange Allowed "F"	Actual "F"		Mounting Holes				Mounting Option	Finish	O.B.D.	Tag
	FW	FH	A & B	C	No. Holes					

SCREW SIZE: #8 x 1", #10 x 1-1/2", Other _____
HEAD STYLE: Flat Head Phillips Flat Head Slotted Pan Head Phillips Other _____
SCREW MATERIAL: Steel Stainless Brass Bronze **SCREW FINISH:** Mill Mill, Lacquered As Grille Painted
 Mill, Oxidized & Lacquered

NOTE: Corner of holes may have a small radii as required for manufacturing.
 To maintain KEES' policy of continuous product improvement, we reserve the right to change prices, specifications, ratings or dimensions without notice or obligation.

Project	Location		KEES INCORPORATED 400 S. Industrial Dr. Elkhart Lake, WI 53020 Phone: (920) 876-3391 Fax: (920) 876-3065 Website: www.kees.com	
Engineer				
Architect	Dwg. No. SD-SA031			
Contractor	Date 04/13			

PATTERN SA031

5/16" ROUND HOLES, 7/16" O.C., STAGGERED PATTERN

46% OPEN

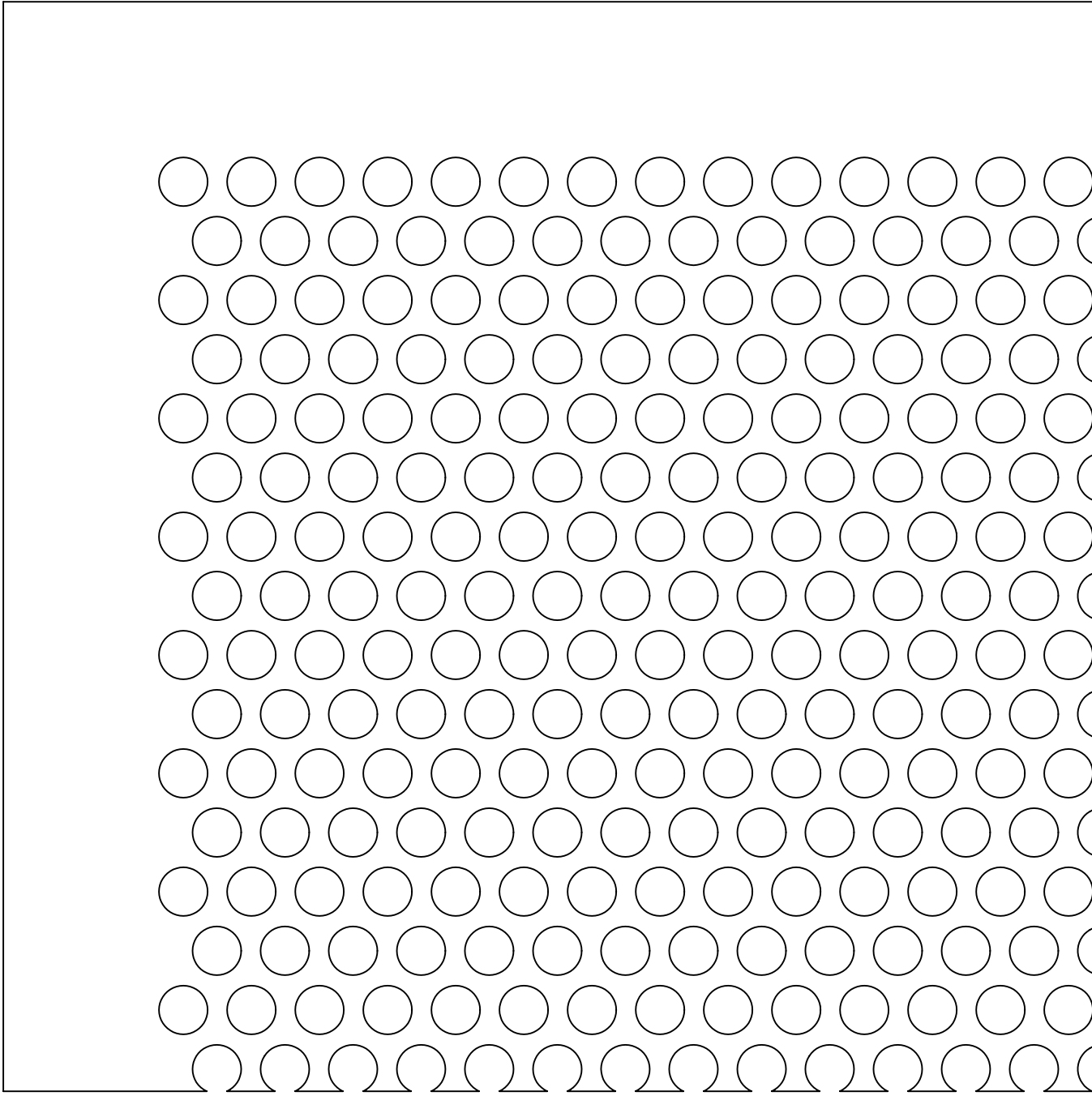
NO.OF HOLES	W INCHES	H INCHES	NO.OF HOLES	W INCHES	H INCHES	NO.OF HOLES	W INCHES	H INCHES	NO.OF HOLES	W INCHES	H INCHES	NO.OF HOLES	W INCHES	H INCHES
41	17.792	15.452	96	41.827	36.270	151	65.862	57.087	206	89.897	77.905	261	113.932	98.722
42	18.229	15.831	97	42.264	36.648	152	66.299	57.466	207	90.334	78.283	262	114.369	99.101
43	18.666	16.209	98	42.701	37.027	153	66.736	57.844	208	90.771	78.662	263	114.806	99.479
44	19.103	16.588	99	43.138	37.405	154	67.173	58.223	209	91.208	79.040	264	115.243	99.858
45	19.540	16.966	100	43.575	37.784	155	67.610	58.601	210	91.645	79.419	265	115.680	100.236
46	19.977	17.345	101	44.012	38.162	156	68.047	58.980	211	92.082	79.797	266	116.117	100.615
47	20.414	17.723	102	44.449	38.541	157	68.484	59.358	212	92.519	80.176	267	116.554	100.993
48	20.851	18.102	103	44.886	38.919	158	68.921	59.737	213	92.956	80.554	268	116.991	101.372
49	21.288	18.480	104	45.323	39.298	159	69.358	60.115	214	93.393	80.933	269	117.428	101.750
50	21.725	18.859	105	45.760	39.676	160	69.795	60.494	215	93.830	81.311	270	117.865	102.129
51	22.162	19.237	106	46.197	40.055	161	70.232	60.872	216	94.267	81.690	271	118.302	102.507
52	22.599	19.616	107	46.634	40.433	162	70.669	61.251	217	94.704	82.068	272	118.739	102.886
53	23.036	19.994	108	47.071	40.812	163	71.106	61.629	218	95.141	82.447	273	119.176	103.264
54	23.473	20.373	109	47.508	41.190	164	71.543	62.008	219	95.578	82.825	274		103.643
55	23.910	20.751	110	47.945	41.569	165	71.980	62.386	220	96.015	83.204	275		104.021
56	24.347	21.130	111	48.382	41.947	166	72.417	62.765	221	96.452	83.582	276		104.400
57	24.784	21.508	112	48.819	42.326	167	72.854	63.143	222	96.889	83.961	277		104.778
58	25.221	21.887	113	49.256	42.704	168	73.291	63.522	223	97.326	84.339	278		105.157
59	25.658	22.265	114	49.693	43.083	169	73.728	63.900	224	97.763	84.718	279		105.535
60	26.095	22.644	115	50.130	43.461	170	74.165	64.279	225	98.200	85.096	280		105.914
61	26.532	23.022	116	50.567	43.840	171	74.602	64.657	226	98.637	85.475	281		106.292
62	26.969	23.401	117	51.004	44.218	172	75.039	65.036	227	99.074	85.853	282		106.671
63	27.406	23.779	118	51.441	44.597	173	75.476	65.414	228	99.511	86.232	283		107.049
64	27.843	24.158	119	51.878	44.975	174	75.913	65.793	229	99.948	86.610	284		107.428
65	28.280	24.536	120	52.315	45.354	175	76.350	66.171	230	100.385	86.989	285		107.806
66	28.717	24.915	121	52.752	45.732	176	76.787	66.550	231	100.822	87.367	286		108.185
67	29.154	25.293	122	53.189	46.111	177	77.224	66.928	232	101.259	87.746	287		108.563
68	29.591	25.672	123	53.626	46.489	178	77.661	67.307	233	101.696	88.124	288		108.942
69	30.028	26.050	124	54.063	46.868	179	78.098	67.685	234	102.133	88.503	289		109.320
70	30.465	26.429	125	54.500	47.246	180	78.535	68.064	235	102.570	88.881	290		109.699
71	30.902	26.807	126	54.937	47.625	181	78.972	68.442	236	103.007	89.260	291		110.077
72	31.339	27.186	127	55.374	48.003	182	79.409	68.821	237	103.444	89.638	292		110.456
73	31.776	27.564	128	55.811	48.382	183	79.846	69.199	238	103.881	90.017	293		110.834
74	32.213	27.943	129	56.248	48.760	184	80.283	69.578	239	104.318	90.395	294		111.213
75	32.650	28.321	130	56.685	49.139	185	80.720	69.956	240	104.755	90.774	295		111.591
76	33.087	28.700	131	57.122	49.517	186	81.157	70.335	241	105.192	91.152	296		111.970
77	33.524	29.078	132	57.559	49.896	187	81.594	70.713	242	105.629	91.531	297		112.348
78	33.961	29.457	133	57.996	50.274	188	82.031	71.092	243	106.066	91.909	298		112.727
79	34.398	29.835	134	58.433	50.653	189	82.468	71.470	244	106.503	92.288	299		113.105
80	34.835	30.214	135	58.870	51.031	190	82.905	71.849	245	106.940	92.666	300		113.484
81	35.272	30.592	136	59.307	51.410	191	83.342	72.227	246	107.377	93.045	301		113.862
82	35.709	30.971	137	59.744	51.788	192	83.779	72.606	247	107.814	93.423	302		114.241
83	36.146	31.349	138	60.181	52.167	193	84.216	72.984	248	108.251	93.802	303		114.619
84	36.583	31.728	139	60.618	52.545	194	84.653	73.363	249	108.688	94.180	304		114.998
85	37.020	32.106	140	61.055	52.924	195	85.090	73.741	250	109.125	94.559	305		115.376
86	37.457	32.485	141	61.492	53.302	196	85.527	74.120	251	109.562	94.937	306		115.755
87	37.894	32.863	142	61.929	53.681	197	85.964	74.498	252	109.999	95.316	307		116.133
88	38.331	33.242	143	62.366	54.059	198	86.401	74.877	253	110.436	95.694	308		116.512
89	38.768	33.620	144	62.803	54.438	199	86.838	75.255	254	110.873	96.073	309		116.890
90	39.205	33.999	145	63.240	54.816	200	87.275	75.634	255	111.310	96.451	310		117.269
91	39.642	34.377	146	63.677	55.195	201	87.712	76.012	256	111.747	96.830	311		117.647
92	40.079	34.756	147	64.114	55.573	202	88.149	76.391	257	112.184	97.208	312		118.026
93	40.516	35.134	148	64.551	55.952	203	88.586	76.769	258	112.621	97.587	313		118.404
94	40.953	35.513	149	64.988	56.330	204	89.023	77.148	259	113.058	97.965	314		118.783
95	41.390	35.891	150	65.425	56.709	205	89.460	77.526	260	113.495	98.344	315		119.161



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DECORATIVE STAMPED GRILLE HOLE PATTERN
PATTERN SA031 - ROUND, STAGGERED
FULL SCALE



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