

# 5810

Return Grille | Multi-deflection, Removable Core



## INTRODUCTION

The 5810 series removable, reversible core return grille feature fixed front blades spaced 1/4" apart. The blades are designed with 15° deflection on one side and 5° deflection on the other. Removing and rotating the core allows for fixed 15° and 5° up or down deflection settings. The 5810 grille is mounted by removing the core and attaching the neck of the frame to the duct work resulting in a clean installation since the screws are hidden from the face of the grille. These grilles are an excellent choice for applications that require an architectural quality return grille.

## MODEL

5810 - Fixed Blade, removable, reversible core, aluminum return grille

## FEATURES

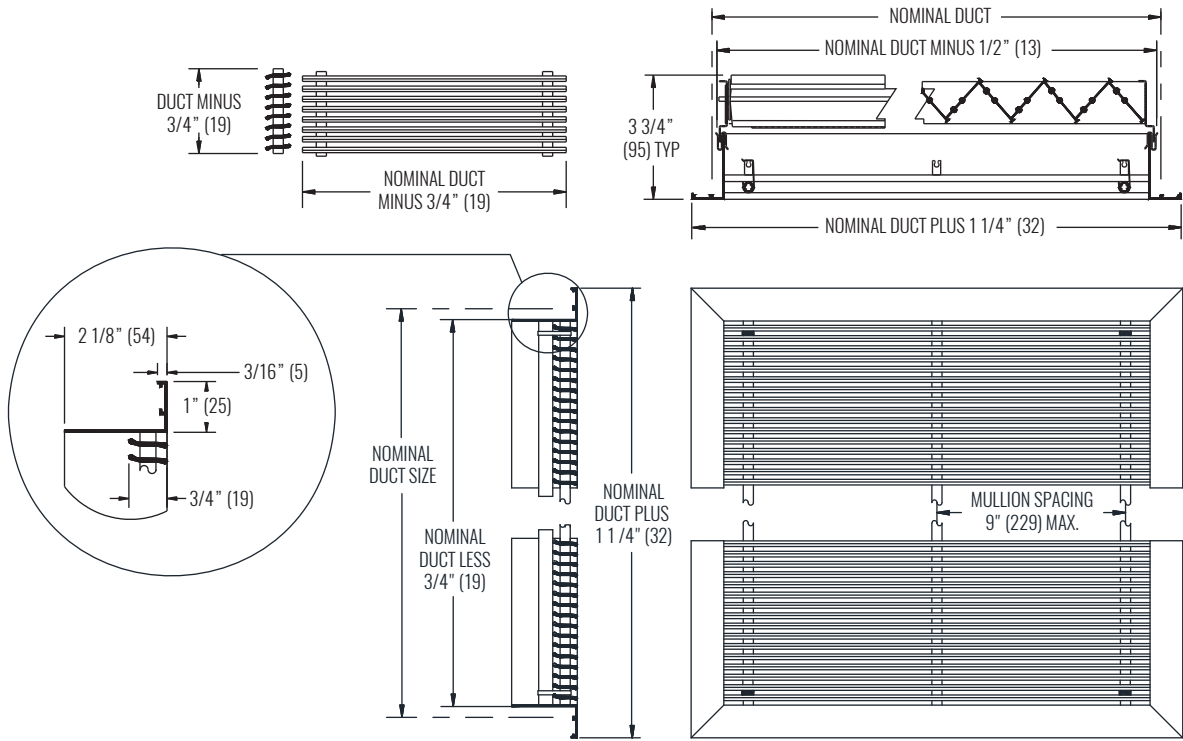
- 5° or 15°, up or down deflection
- Available as core only
- Standard finish is #44 British White
- Optional finishes available

## ACCESSORIES

- Steel opposed blade damper (model OBD)
- Steel painted opposed blade damper (model POBD)
- Aluminum opposed blade damper (model 5OBD)



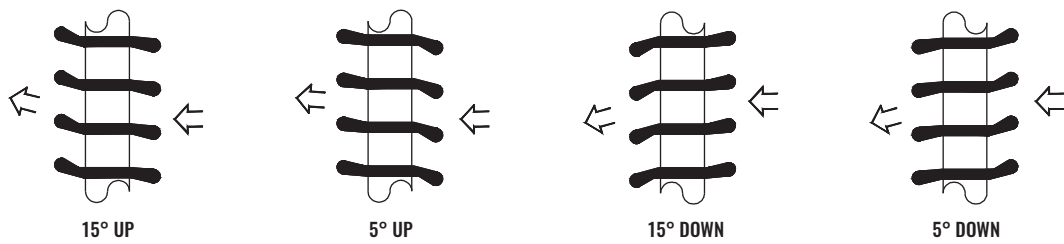
**DIMENSIONAL DATA**



**FACE, SIDE, AND CROSS SECTION VIEWS**

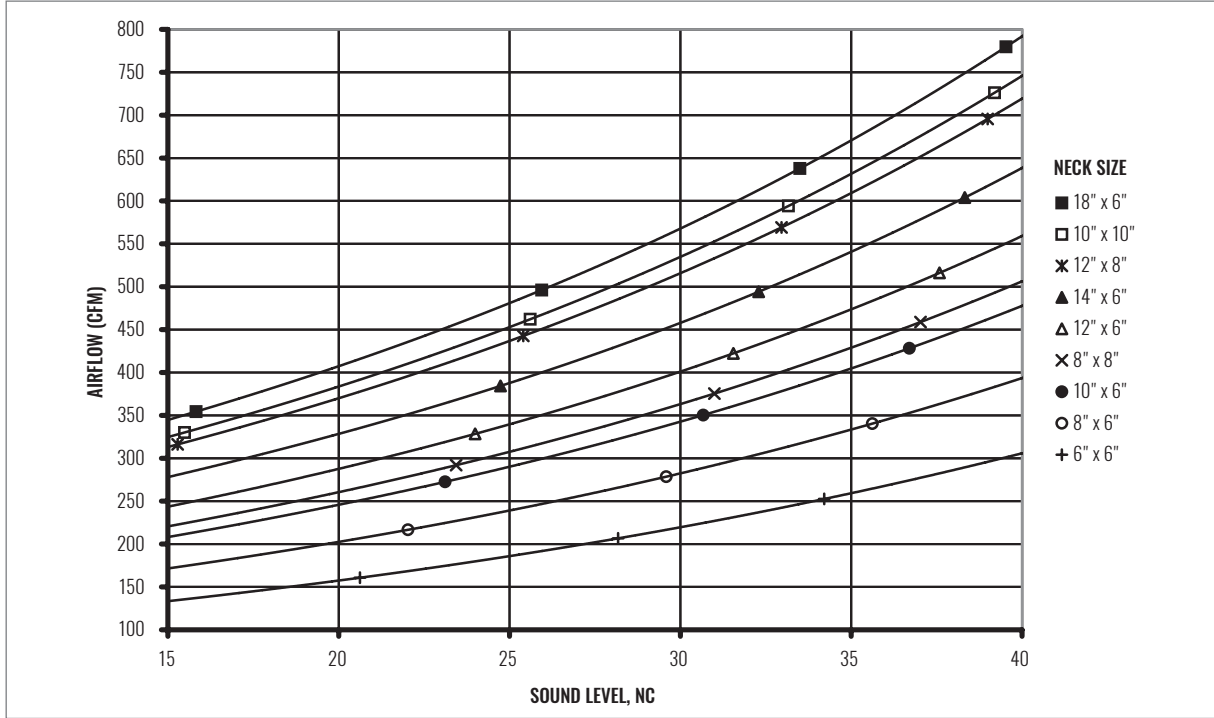
NOTE: Dimensions in parentheses are mm.

**CORE ADJUSTMENTS**

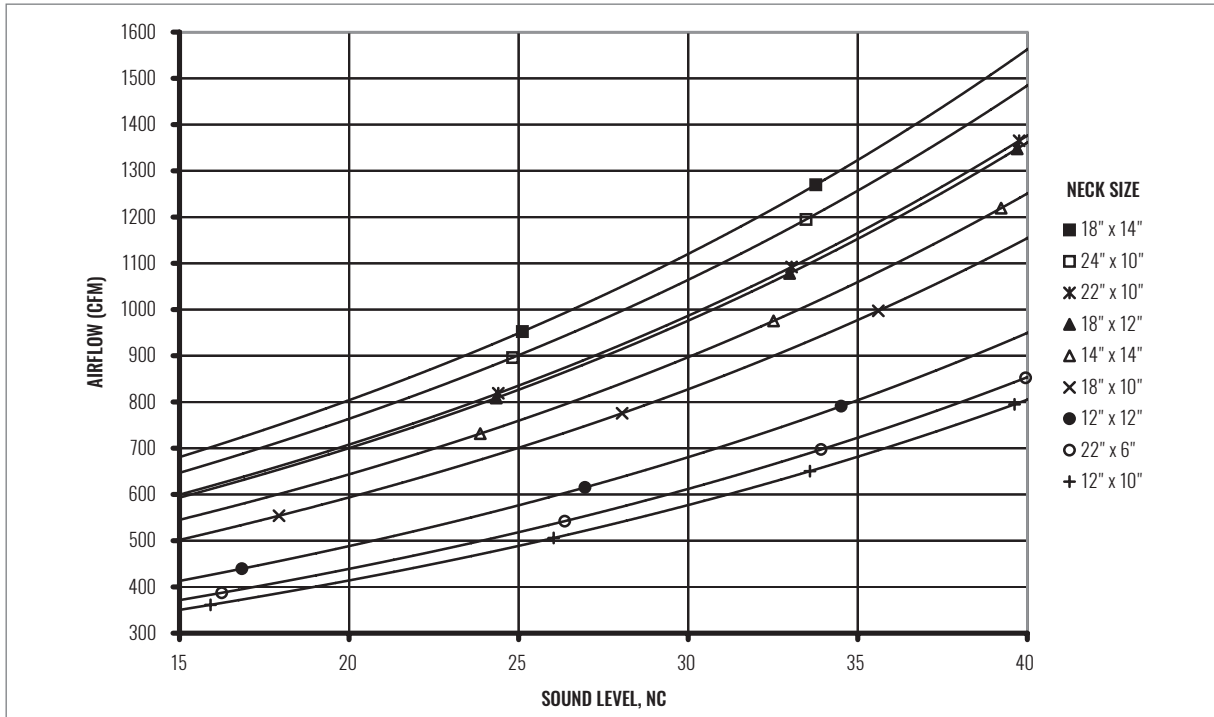


## SOUND CHARTS

AIRFLOW VS. NC: 5810 (NO DAMPER)

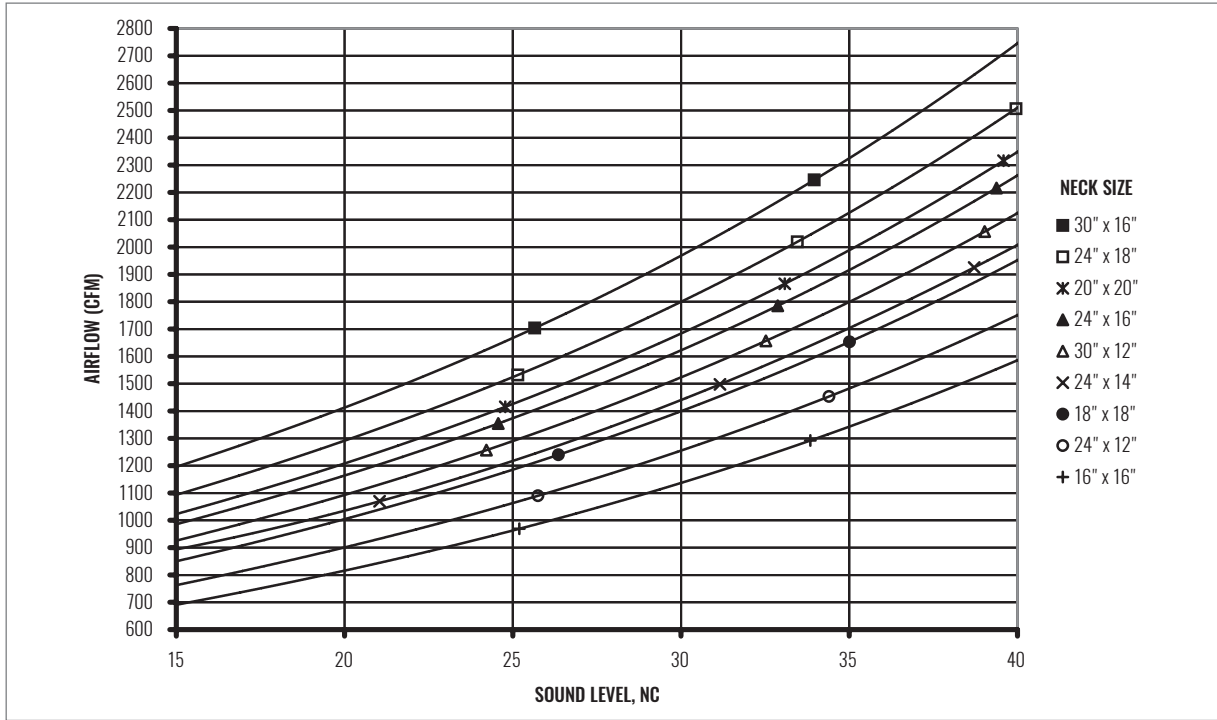


AIRFLOW VS. NC: 5810 (NO DAMPER)

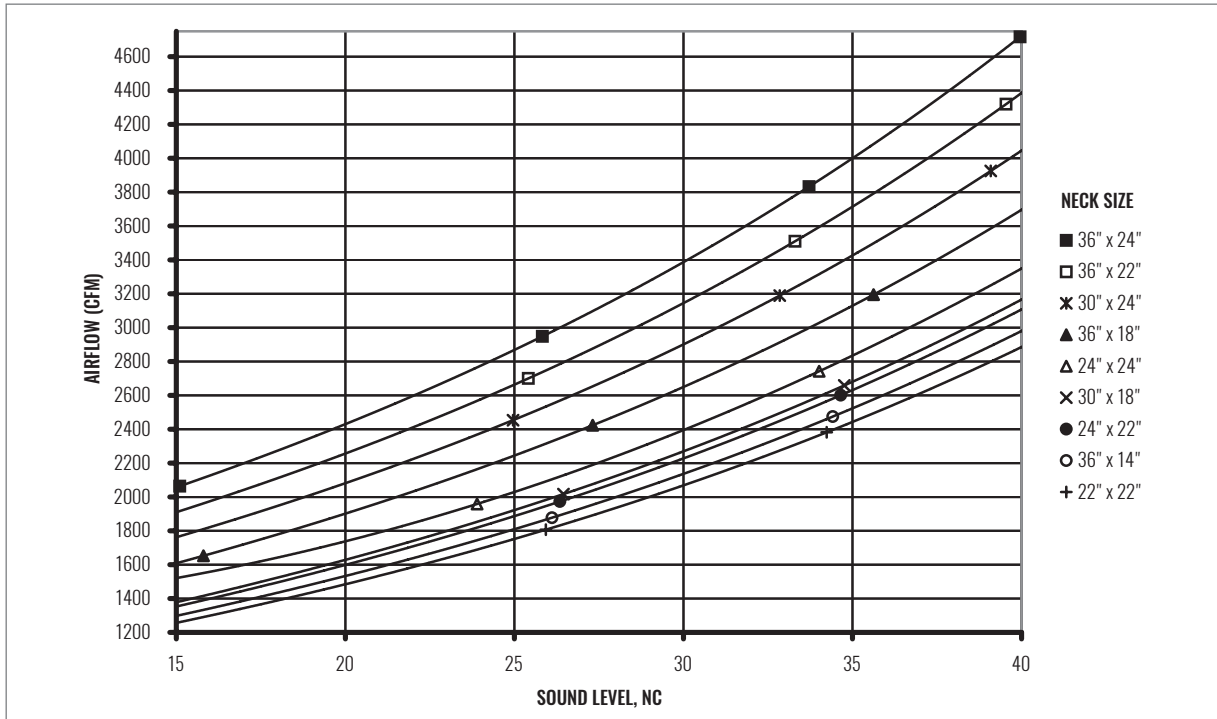


**SOUND CHARTS**

**AIRFLOW VS. NC: 5810 (NO DAMPER)**



**AIRFLOW VS. NC: 5810 (NO DAMPER)**



GRILLES | RETURN

## PERFORMANCE DATA (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
NOM DUCT	DUCT AREA	NECK EL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa	2	3	4	5	6	7		
6" x 6"	0.25	300	69	-0.28	-	152 x 152	0.02	1.52	33	-7.0	16	18	14	-	-	-		
		500	115	-0.78	11			2.54	54	-19.5	26	29	27	21	14	-		
		700	161	-1.53	21			3.56	76	-38.1	33	36	36	32	26	18		
		900	207	-2.53	28			4.57	98	-63.0	39	41	42	39	36	27		
		1100	253	-3.78	34			5.59	119	-94.2	43	46	47	45	43	35		
8" x 6"	0.33	300	93	-0.28	-	203 x 152	0.03	1.52	44	-7.0	17	19	15	-	-	-		
		500	155	-0.78	12			2.54	73	-19.5	28	30	28	23	15	-		
		700	217	-1.53	22			3.56	102	-38.1	35	37	37	33	28	19		
		900	279	-2.53	30			4.57	131	-63.0	40	43	43	41	37	29		
		1100	340	-3.78	36			5.59	161	-94.2	44	47	48	47	44	36		
10" x 6"	0.42	300	117	-0.28	-	254 x 152	0.04	1.52	55	-7.0	18	20	16	-	-	-		
		500	195	-0.78	13			2.54	92	-19.5	29	31	29	24	16	-		
		700	273	-1.53	23			3.56	129	-38.1	36	38	38	34	29	20		
		900	350	-2.53	31			4.57	165	-63.0	41	44	44	42	38	30		
		1100	428	-3.78	37			5.59	202	-94.2	45	48	49	48	45	37		
8" x 8"	0.44	300	125	-0.28	-	203 x 203	0.04	1.52	59	-7.0	18	20	17	-	-	-		
		500	209	-0.78	13			2.54	98	-19.5	29	31	30	24	17	-		
		700	292	-1.53	23			3.56	138	-38.1	36	39	38	34	29	20		
		900	375	-2.53	31			4.57	177	-63.0	41	44	44	42	38	30		
		1100	459	-3.78	37			5.59	217	-94.2	45	48	50	48	46	38		
12" x 6"	0.50	300	141	-0.28	-	305 x 152	0.05	1.52	66	-7.0	19	21	17	-	-	-		
		500	235	-0.78	14			2.54	111	-19.5	30	32	30	24	17	-		
		700	328	-1.53	24			3.56	155	-38.1	37	39	39	35	30	21		
		900	422	-2.53	32			4.57	199	-63.0	42	45	45	42	39	30		
		1100	516	-3.78	38			5.59	244	-94.2	46	49	50	48	46	38		
14" x 6"	0.58	300	165	-0.28	-	356 x 152	0.05	1.52	78	-7.0	20	21	18	-	-	-		
		500	275	-0.78	15			2.54	130	-19.5	30	32	31	25	18	-		
		700	384	-1.53	25			3.56	181	-38.1	37	40	39	35	30	21		
		900	494	-2.53	32			4.57	233	-63.0	42	45	46	43	40	31		
		1100	604	-3.78	38			5.59	285	-94.2	47	50	51	49	47	39		
12" x 8"	0.67	300	190	-0.28	-	305 x 203	0.06	1.52	90	-7.0	20	22	19	-	-	-		
		500	316	-0.78	15			2.54	149	-19.5	31	33	31	26	18	-		
		700	443	-1.53	25			3.56	209	-38.1	38	40	40	36	31	22		
		900	569	-2.53	33			4.57	269	-63.0	43	46	46	44	40	32		
		1100	696	-3.78	39			5.59	328	-94.2	47	50	51	50	48	39		
10" x 10"	0.69	300	198	-0.28	-	254 x 254	0.06	1.52	93	-7.0	20	22	19	-	-	-		
		500	330	-0.78	15			2.54	156	-19.5	31	33	32	26	19	-		
		700	462	-1.53	26			3.56	218	-38.1	38	41	40	36	31	22		
		900	594	-2.53	33			4.57	280	-63.0	43	46	46	44	40	32		
		1100	726	-3.78	39			5.59	343	-94.2	47	50	51	50	48	40		
18" x 6"	0.75	300	213	-0.28	-	457 x 152	0.07	1.52	100	-7.0	21	22	19	11	-	-		
		500	354	-0.78	16			2.54	167	-19.5	31	34	32	26	19	-		
		700	496	-1.53	26			3.56	234	-38.1	38	41	40	36	31	22		
		900	638	-2.53	33			4.57	301	-63.0	44	46	47	44	41	32		
		1100	780	-3.78	40			5.59	368	-94.2	48	51	52	50	48	40		
12" x 10"	0.83	300	217	-0.28	-	305 x 254	0.08	1.52	102	-7.0	21	23	19	11	-	-		
		500	361	-0.78	16			2.54	171	-19.5	31	34	32	26	19	-		
		700	506	-1.53	26			3.56	239	-38.1	38	41	41	37	31	23		
		900	650	-2.53	34			4.57	307	-63.0	44	46	47	44	41	32		
		1100	795	-3.78	40			5.59	375	-94.2	48	51	52	50	48	40		

NOTE: See notes on page J1-145.

### PERFORMANCE DATA (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB							
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa	2	3	4	5	6	7		
22" x 6"	0.92	300	232	-0.28	-	559 x 152	0.09	1.52	110	-7.0	21	23	19	11	-	-		
		500	387	-0.78	16			2.54	183	-19.5	32	34	32	27	19	-		
		700	542	-1.53	26			3.56	256	-38.1	39	41	41	37	32	23		
		900	697	-2.53	34			4.57	329	-63.0	44	47	47	44	41	33		
		1100	852	-3.78	40			5.59	402	-94.2	48	51	52	51	48	40		
12" x 12"	1.00	300	264	-0.28	-	305 x 305	0.09	1.52	124	-7.0	22	23	20	12	-	-		
		500	439	-0.78	17			2.54	207	-19.5	32	34	33	27	20	-		
		700	615	-1.53	27			3.56	290	-38.1	39	42	41	37	32	23		
		900	791	-2.53	35			4.57	373	-63.0	45	47	48	45	42	33		
		1100	967	-3.78	41			5.59	456	-94.2	49	52	53	51	49	41		
18" x 10"	1.25	300	332	-0.28	-	457 x 254	0.12	1.52	157	-7.0	23	24	21	13	-	-		
		500	554	-0.78	18			2.54	261	-19.5	33	35	34	28	21	11		
		700	776	-1.53	28			3.56	366	-38.1	40	43	42	38	33	24		
		900	997	-2.53	36			4.57	471	-63.0	46	48	49	46	43	34		
		1100	1219	-3.78	42			5.59	575	-94.2	50	53	54	52	50	42		
14" x 14"	1.36	200	244	-0.13	-	356 x 356	0.13	1.02	115	-3.1	15	16	11	-	-	-		
		400	488	-0.50	12			2.03	230	-12.5	29	31	29	22	13	-		
		600	732	-1.13	24			3.05	345	-28.0	38	40	39	34	28	19		
		800	975	-2.00	33			4.06	460	-49.8	44	46	46	43	39	30		
		1000	1219	-3.13	39			5.08	575	-77.8	48	51	52	50	47	39		
18" x 12"	1.50	200	270	-0.13	-	457 x 305	0.14	1.02	127	-3.1	15	16	12	-	-	-		
		400	539	-0.50	12			2.03	254	-12.5	29	31	29	22	13	-		
		600	809	-1.13	24			3.05	382	-28.0	38	40	39	35	28	19		
		800	1078	-2.00	33			4.06	509	-49.8	44	47	47	43	39	30		
		1000	1348	-3.13	40			5.08	636	-77.8	49	51	52	50	47	39		
22" x 10"	1.53	200	273	-0.13	-	559 x 254	0.14	1.02	129	-3.1	15	17	12	-	-	-		
		400	546	-0.50	12			2.03	258	-12.5	30	32	29	22	14	-		
		600	819	-1.13	24			3.05	387	-28.0	38	40	39	35	28	19		
		800	1092	-2.00	33			4.06	515	-49.8	44	47	47	43	39	30		
		1000	1365	-3.13	40			5.08	644	-77.8	49	51	52	50	47	39		
24" x 10"	1.67	200	299	-0.13	-	610 x 254	0.15	1.02	141	-3.1	15	17	12	-	-	-		
		400	597	-0.50	13			2.03	282	-12.5	30	32	30	23	14	-		
		600	896	-1.13	25			3.05	423	-28.0	38	41	40	35	29	20		
		800	1195	-2.00	33			4.06	564	-49.8	44	47	47	44	40	31		
		1000	1493	-3.13	40			5.08	705	-77.8	49	52	53	51	48	39		
18" x 14"	1.75	200	317	-0.13	-	457 x 356	0.16	1.02	150	-3.1	16	17	12	-	-	-		
		400	635	-0.50	13			2.03	300	-12.5	30	32	30	23	14	-		
		600	952	-1.13	25			3.05	449	-28.0	39	41	40	35	29	20		
		800	1270	-2.00	34			4.06	599	-49.8	45	47	47	44	40	31		
		1000	1587	-3.13	40			5.08	749	-77.8	49	52	53	51	48	40		
16" x 16"	1.78	200	323	-0.13	-	406 x 406	0.17	1.02	152	-3.1	16	17	12	-	-	-		
		400	646	-0.50	13			2.03	305	-12.5	30	32	30	23	14	-		
		600	969	-1.13	25			3.05	457	-28.0	39	41	40	35	29	20		
		800	1292	-2.00	34			4.06	610	-49.8	45	47	47	44	40	31		
		1000	1615	-3.13	41			5.08	762	-77.8	49	52	53	51	48	40		
24" x 12"	2.00	200	363	-0.13	-	610 x 305	0.19	1.02	171	-3.1	16	18	13	-	-	-		
		400	727	-0.50	14			2.03	343	-12.5	31	33	30	24	15	-		
		600	1090	-1.13	26			3.05	514	-28.0	39	42	41	36	30	21		
		800	1453	-2.00	34			4.06	686	-49.8	45	48	48	45	40	32		
		1000	1816	-3.13	41			5.08	857	-77.8	50	53	53	51	49	40		

NOTE: See notes on page J1-145.

## PERFORMANCE DATA (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	NOM DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB							
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa	2	3	4	5	6	7		
18" x 18"	2.25	200	413	-0.13	-	457 x 457	0.21	1.02	195	-3.1	17	18	14	-	-	-		
		400	827	-0.50	14			2.03	390	-12.5	31	33	31	24	15	-		
		600	1240	-1.13	26			3.05	585	-28.0	40	42	41	36	30	21		
		800	1653	-2.00	35			4.06	780	-49.8	46	48	48	45	41	32		
		1000	2066	-3.13	42			5.08	975	-77.8	50	53	54	52	49	41		
24" x 14"	2.33	100	214	-0.03	-	610 x 356	0.22	0.51	101	-0.8	-	-	-	-	-	-		
		300	642	-0.28	-			1.52	303	-7.0	26	27	24	16	-	-		
		500	1070	-0.78	21			2.54	505	-19.5	36	38	37	31	24	14		
		700	1498	-1.53	31			3.56	707	-38.1	43	46	45	41	36	27		
		900	1925	-2.53	39			4.57	909	-63.0	48	51	52	49	45	37		
30" x 12"	2.50	200	457	-0.13	-	762 x 305	0.23	1.02	216	-3.1	17	19	14	-	-	-		
		375	857	-0.44	13			1.91	404	-10.9	30	32	30	23	13	-		
		550	1257	-0.95	24			2.79	593	-23.5	38	41	39	34	28	18		
		725	1657	-1.64	33			3.68	782	-40.9	44	47	46	43	38	29		
		900	2057	-2.53	39			4.57	971	-63.0	49	51	52	49	46	37		
24" x 16"	2.67	200	492	-0.13	-	610 x 406	0.25	1.02	232	-3.1	18	19	14	-	-	-		
		375	923	-0.44	13			1.91	436	-10.9	31	33	30	23	14	-		
		550	1354	-0.95	25			2.79	639	-23.5	39	41	40	35	28	19		
		725	1785	-1.64	33			3.68	842	-40.9	45	47	47	43	38	29		
		900	2216	-2.53	39			4.57	1046	-63.0	49	52	52	50	46	38		
20" x 20"	2.78	200	515	-0.13	-	508 x 508	0.26	1.02	243	-3.1	18	19	14	-	-	-		
		375	965	-0.44	13			1.91	455	-10.9	31	33	30	23	14	-		
		550	1415	-0.95	25			2.79	668	-23.5	39	41	40	35	28	19		
		725	1866	-1.64	33			3.68	881	-40.9	45	47	47	43	38	29		
		900	2316	-2.53	40			4.57	1093	-63.0	49	52	52	50	46	38		
24" x 18"	3.00	200	557	-0.13	-	610 x 457	0.28	1.02	263	-3.1	18	20	15	-	-	-		
		375	1044	-0.44	14			1.91	493	-10.9	31	33	31	23	14	-		
		550	1532	-0.95	25			2.79	723	-23.5	39	42	40	35	28	19		
		725	2019	-1.64	33			3.68	953	-40.9	45	48	47	43	39	30		
		900	2507	-2.53	40			4.57	1183	-63.0	50	52	53	50	47	38		
30" x 16"	3.33	200	620	-0.13	-	762 x 406	0.31	1.02	292	-3.1	19	20	15	-	-	-		
		375	1162	-0.44	14			1.91	548	-10.9	32	34	31	24	15	-		
		550	1704	-0.95	26			2.79	804	-23.5	40	42	41	36	29	20		
		725	2246	-1.64	34			3.68	1060	-40.9	46	48	48	44	39	30		
		900	2788	-2.53	40			4.57	1316	-63.0	50	53	53	51	47	39		
22" x 22"	3.36	200	657	-0.13	-	559 x 559	0.31	1.02	310	-3.1	19	20	16	-	-	-		
		375	1232	-0.44	14			1.91	581	-10.9	32	34	31	24	15	-		
		550	1807	-0.95	26			2.79	853	-23.5	40	42	41	36	29	20		
		725	2382	-1.64	34			3.68	1124	-40.9	46	48	48	44	39	30		
		900	2957	-2.53	41			4.57	1395	-63.0	50	53	53	51	47	39		
36" x 14"	3.50	200	683	-0.13	-	914 x 356	0.33	1.02	322	-3.1	19	20	16	-	-	-		
		375	1280	-0.44	15			1.91	604	-10.9	32	34	32	24	15	-		
		550	1877	-0.95	26			2.79	886	-23.5	40	42	41	36	29	20		
		725	2475	-1.64	34			3.68	1168	-40.9	46	48	48	44	39	31		
		900	3072	-2.53	41			4.57	1450	-63.0	50	53	54	51	47	39		
24" x 22"	3.67	200	717	-0.13	-	610 x 559	0.34	1.02	339	-3.1	19	21	16	-	-	-		
		375	1345	-0.44	15			1.91	635	-10.9	32	34	32	25	15	-		
		550	1973	-0.95	26			2.79	931	-23.5	40	43	41	36	29	20		
		725	2601	-1.64	35			3.68	1227	-40.9	46	49	48	45	40	31		
		900	3229	-2.53	41			4.57	1524	-63.0	51	53	54	51	48	39		

NOTE: See notes on page J1-145.

### PERFORMANCE DATA (NO DAMPER)

NOM DUCT	IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
	DUCT AREA	NECK VEL	AIRFLOW	Ps		NOM DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	2	3	4	5	6	7	
	in	ft <sup>2</sup>	FPM	CFM		"WG	mm	m <sup>2</sup>	m/s	L/s	Pa						
30" x 18"	3.75	200	733	-0.13	-	762 x 457	0.35	1.02	346	-3.1	19	21	16	-	-	-	
		375	1375	-0.44	15			1.91	649	-10.9	32	34	32	25	15	-	
		550	2017	-0.95	26			2.79	952	-23.5	40	43	41	36	30	20	
		725	2659	-1.64	35			3.68	1255	-40.9	46	49	48	45	40	31	
		900	3300	-2.53	41			4.57	1558	-63.0	51	53	54	51	48	39	
24" x 24"	4.00	100	392	-0.03	-	610 x 610	0.37	0.51	185	-0.8	-	-	-	-	-	-	
		300	1175	-0.28	-			1.52	555	-7.0	28	30	27	18	-	-	
		500	1959	-0.78	24			2.54	924	-19.5	39	41	39	34	26	17	
		700	2742	-1.53	34			3.56	1294	-38.1	46	48	48	44	39	30	
		900	3525	-2.53	42			4.57	1664	-63.0	51	54	54	52	48	40	
36" x 18"	4.50	200	881	-0.13	-	914 x 457	0.42	1.02	416	-3.1	20	22	17	-	-	-	
		375	1653	-0.44	16			1.91	780	-10.9	33	35	33	25	16	-	
		550	2424	-0.95	27			2.79	1144	-23.5	41	44	42	37	30	21	
		725	3195	-1.64	36			3.68	1508	-40.9	47	50	49	45	41	32	
		900	3966	-2.53	42			4.57	1872	-63.0	52	54	55	52	49	40	
30" x 24"	5.00	200	981	-0.13	-	762 x 610	0.46	1.02	463	-3.1	21	22	17	-	-	-	
		350	1717	-0.38	14			1.78	810	-9.5	32	34	31	24	14	-	
		500	2453	-0.78	25			2.54	1158	-19.5	40	42	40	35	27	18	
		650	3189	-1.32	33			3.30	1505	-32.9	45	48	47	43	37	28	
		800	3925	-2.00	39			4.06	1853	-49.8	50	52	52	49	45	36	
36" x 22"	5.50	200	1080	-0.13	-	914 x 559	0.51	1.02	510	-3.1	21	22	18	-	-	-	
		350	1890	-0.38	15			1.78	892	-9.5	33	35	32	24	15	-	
		500	2700	-0.78	25			2.54	1274	-19.5	40	42	41	35	28	18	
		650	3510	-1.32	33			3.30	1656	-32.9	46	48	47	43	37	28	
		800	4320	-2.00	40			4.06	2039	-49.8	50	53	53	49	45	36	
36" x 24"	6.00	200	1179	-0.13	-	914 x 610	0.56	1.02	557	-3.1	21	23	18	-	-	-	
		350	2064	-0.38	15			1.78	974	-9.5	33	35	32	25	15	-	
		500	2948	-0.78	26			2.54	1391	-19.5	41	43	41	35	28	19	
		650	3833	-1.32	34			3.30	1809	-32.9	46	48	48	43	38	29	
		800	4717	-2.00	40			4.06	2226	-49.8	50	53	53	50	45	37	

NOTES: NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10<sup>-12</sup> Watts. Dash in space denotes a NC or dB value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See Krueger's selection program for performance data not shown, including octave band data.



## ENGINEERING SPECIFICATION & CONFIGURATION

### 5810

The return grille shall be a Krueger model 5810. This grille must have fixed extruded aluminum blades on 1/4" centers with a minimum thickness of 0.062". The core of the 5810 shall be assembled using mandrel construction. This core must be removable from the frame of the 5810 to allow the core to be flipped or rotated so one core can provide four different blade orientations: 5° up, 5° down, 15° up and 15° down. The frame of the grille must be constructed of extruded aluminum with nominal thickness 0.040 - 0.050". This frame must also produce a border of 1" around all sides of the grille and have a flat edge (Frame F) with mitered corners.

### PERFORMANCE

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

### FINISH

The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 - 1.0 mils, gloss at 60° per ASTM D523-89 of 50 - 85%, pencil hardness per ASTM D3363-92A of HB - H, crosshatch adhesion per ASTM D3359-83 of 4B - 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

#### 1. SERIES: (XXXX)

5810 - Multi-deflection, removable core, aluminum return grille

#### 2. PATTERN: (X) \*

H - Horizontal front blades  
V - Vertical front blades

#### 3. WIDTH: (XX)

6" - 48" in 1/4" increments

#### 4. HEIGHT: (XX)

4" - 48" in 1/4" increments

#### 5. FRAME: (XXX)

F00 - Core only  
F22 - Surface mount

#### 6. FRAME TYPE: (X)

0 - None  
F - Flat frame

#### 7. FASTENING METHOD: (XX)

00 - No screw holes  
01 - Screw holes

#### 8. DAMPER: (XX) \*\*

00 - No damper  
01 - Steel opposed blade damper (model OBD)  
13 - Steel, painted opposed blade damper (POBD)  
15 - Aluminum opposed blade damper (model 5OBD)

#### 9. ACCESSORIES: (XX) \*\*\*

00 - None  
IS - Insect screen  
DS - Debris screen

#### 10. FINISH: (XX) \*\*\*\*

01 - Mill  
10 - Alumican  
35 - Black  
44 - British White

Maximum grille size is 48x48 with Frame F22.

Maximum grille size is 72x24 with Frame F00.

When ordering core only, frame must be (F00). Frame (F00) is only available with frame type (0), fastening method (00), damper (00), and accessories (00).

\* Pattern 'V' not available with height of 4" or 5".

\*\* Damper not available with insect or debris screen.

\*\*\* Insect and debris screen not available with widths greater than 48".

\*\*\*\* Anodized finishes available.

**SAMPLE CONFIGURATION:** 5810 - V - 12x24 - F22 - F - 01 - 15 - 00 - 10