

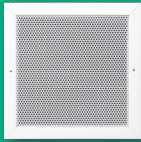
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S80/S580
 These fixed-blade return grilles feature 3/4" blade spacing. Deflection will be fixed at 35° or 0°. Available in aluminum or steel construction.



S85/S585
 These fixed-blade return grilles feature 1/2" blade spacing. Deflection will be fixed at 35° or 0°. Available in aluminum or steel construction.



S80P/S580P
 These perforated return grilles feature 3/16" holes on 1/4" staggered centers. Available in steel or aluminum construction.



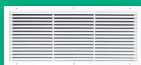
S480
 This heavy duty, fixed blade, return grille features 1/2" blade spacing. Deflection will be fixed at 38° or 0°. Available in steel construction only.



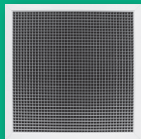
S5480
 This heavy duty, fixed blade, return grille features 1/2" blade spacing. Deflection will be fixed at 30° or 0°. Available in aluminum construction only.



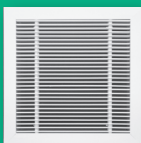
AFS580/AFS585
 These return grilles feature fixed blades with 3/4" or 1/2" blade spacing with 45° or 0° deflection. Available in extruded aluminum construction only.



AFCS80/AFCS85
 These return grilles feature curved blades, either 3/4" blade spacing with 45° deflection or 1/2" blade spacing with 30° deflection. Available in steel construction only.



EG/EGC Series
 This series of egg-crate return grilles feature various sized aluminum cube cores. Available as core only, with channel frame, or lay-in frame.



5810
 This fixed-blade return grille features a removable, reversible core. Deflection may be set at 5° or 15° up/down. Available in aluminum construction only.

S80, S580, S85, S585

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S80P, S580P

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AFS580, AFS585

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AFCS80, AFCS85

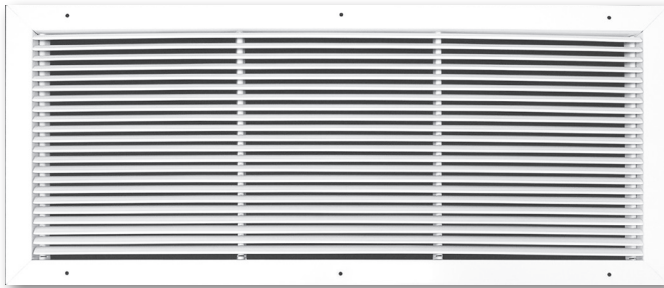
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EG5, EG10, EG15, EGC5, EGC10, EGC15

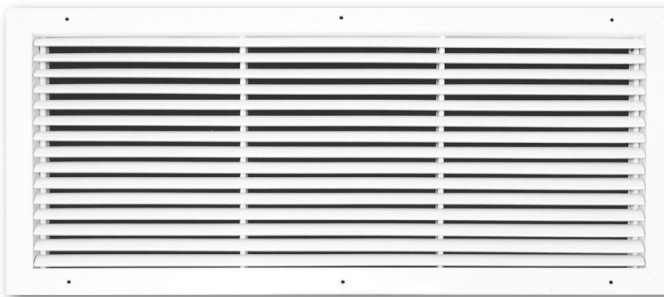
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AFCS85, 30° Deflection



AFCS80, 45° Deflection

Introduction: AFCS80, AFCS85

The AFCS80/AFCS85 return grilles are designed to fit most common commercial and architectural applications. The AFCS80 offers fixed curved blades with 3/4" blade spacing and 45° deflection. The AFCS85 offers fixed curved blades with 1/2" blade spacing and 30° deflection. Both grilles have a 1 1/4" flange. The curved blades enhance the overall look of the face of the grille resulting in a clean appearance.

MODELS

AFCS80 - Curved Blade Return Grille with
3/4" Blade Spacing and 45° Deflection

AFCS85 - Curved Blade Return Grille with
1/2" Blade Spacing and 30° Deflection

FEATURES

- Horizontal or vertical front blades.
- Curved blades.
- Steel construction.

ACCESSORIES

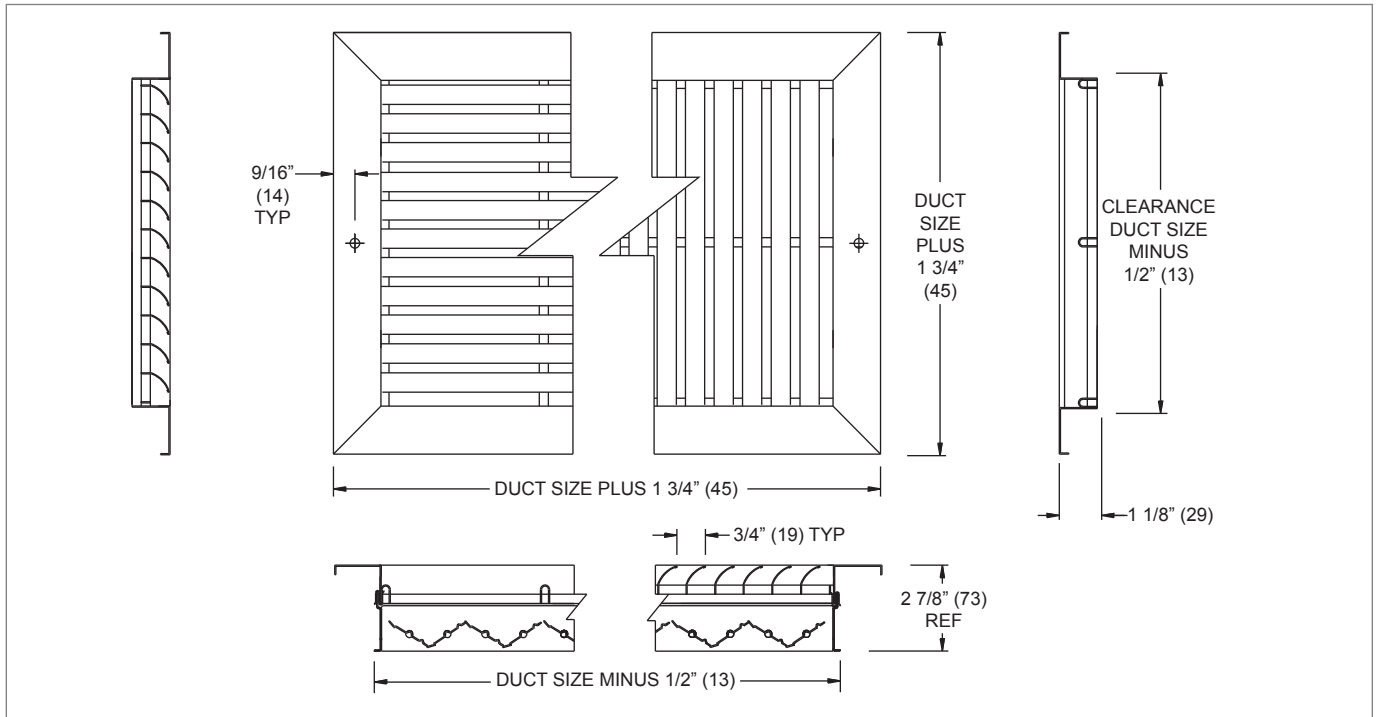
- Steel Opposed Blade Damper (Model OBD)
- Steel Painted Opposed Blade Damper (Model POBD)
- Aluminum Opposed Blade Damper (Model 5OBD)
- Plaster Frame (Model 8PF)
- 1" or 2" Filter Frame - Minimum size is 8"x8" and maximum size is 48"x36". (Model 5FF)
- Insect Screen - 1/16" Mesh
- Debris Screen - 1/4" Mesh

FINISHES

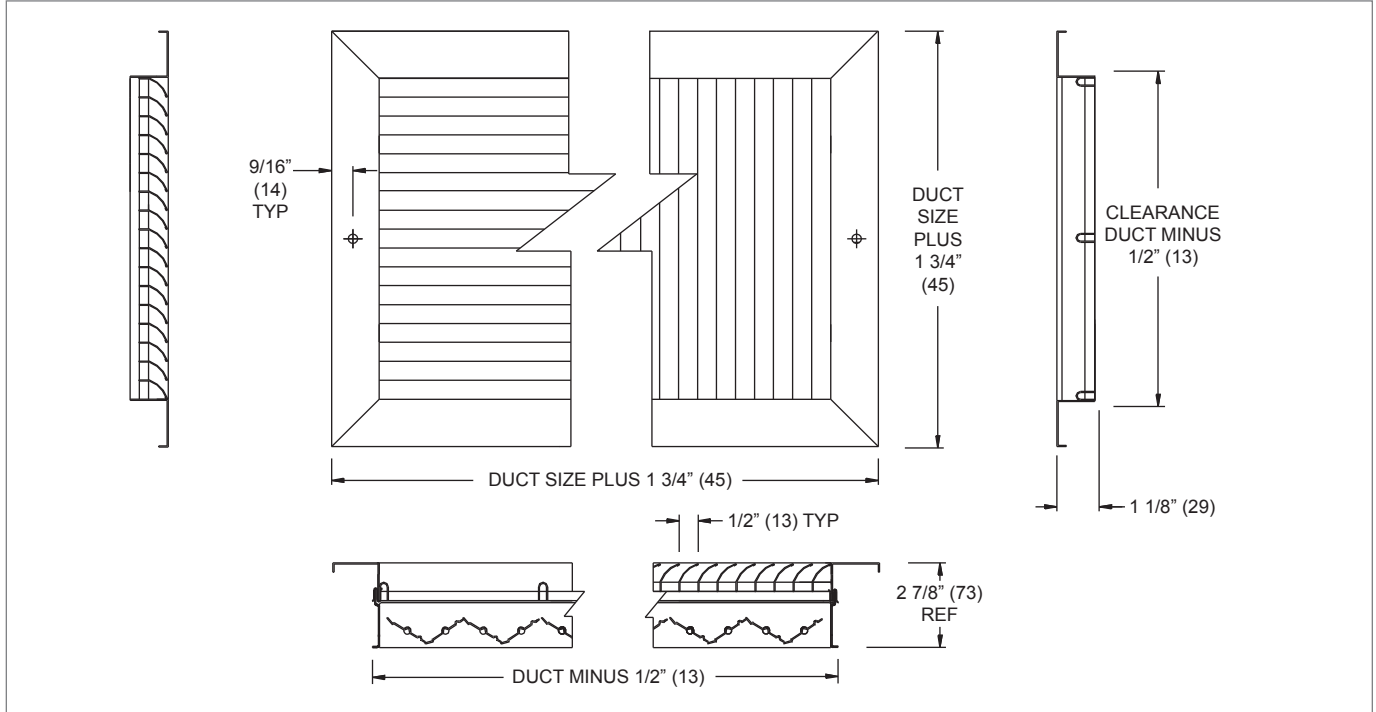
- Standard finish is #44 British White.
- Optional finishes available.

AFCS80, AFCS85 Dimensional Information

AFCS80, 45° DEFLECTION FACE VIEW, SIDE VIEW, & CROSS SECTION



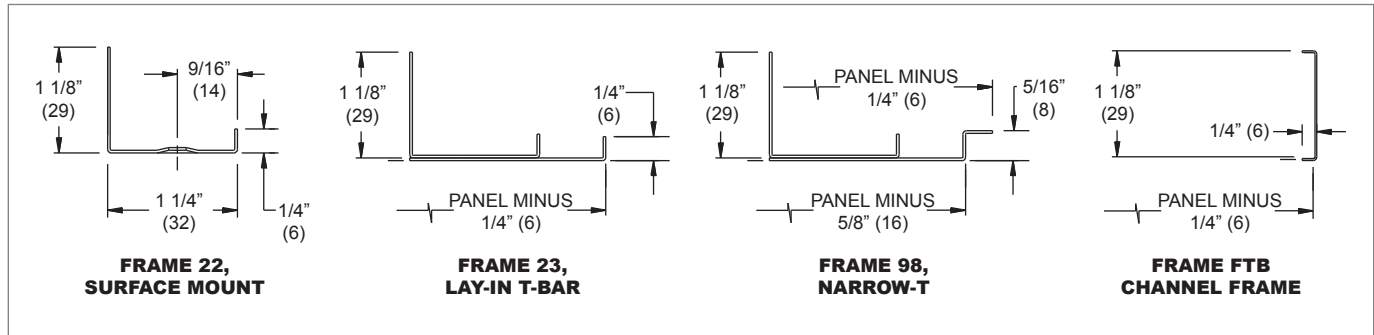
AFCS85, 30° DEFLECTION FACE VIEW, SIDE VIEW, & CROSS SECTION



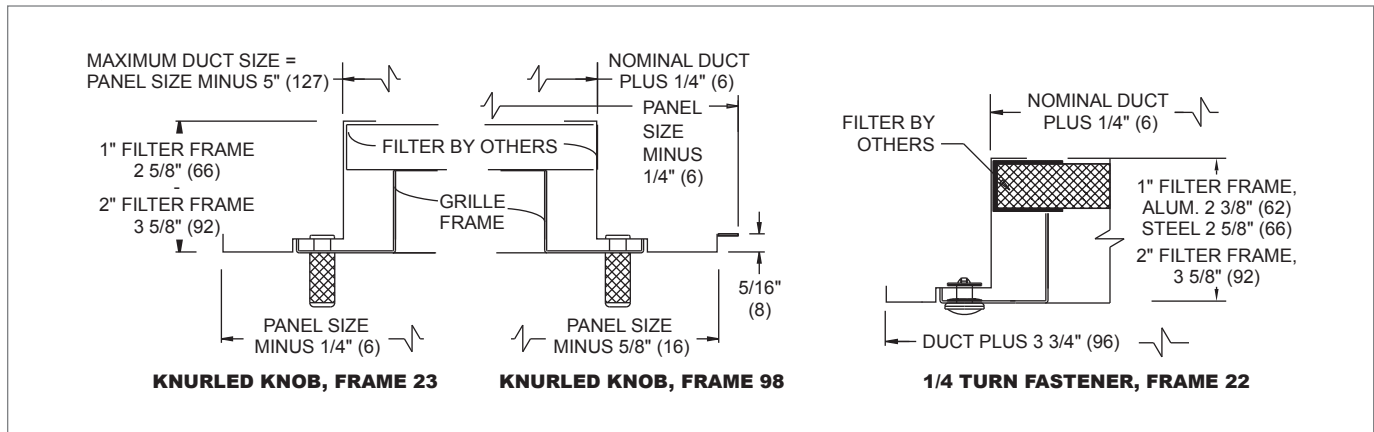
NOTE: Dimensions in parentheses are mm.

AFCS80, AFCS85 Dimensional Information

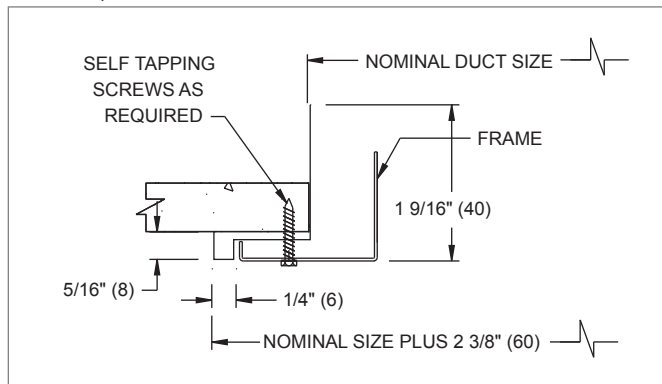
AFCS80, AFCS85 FRAME STYLES



AFCS80, AFCS85 FILTER FRAME MOUNTING

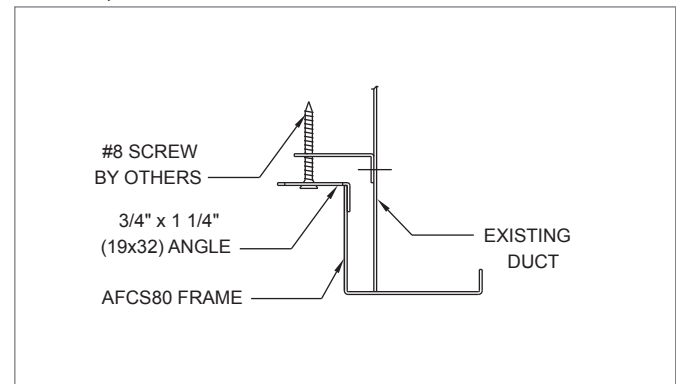


AFCS80, AFCS85 PLASTER FRAME



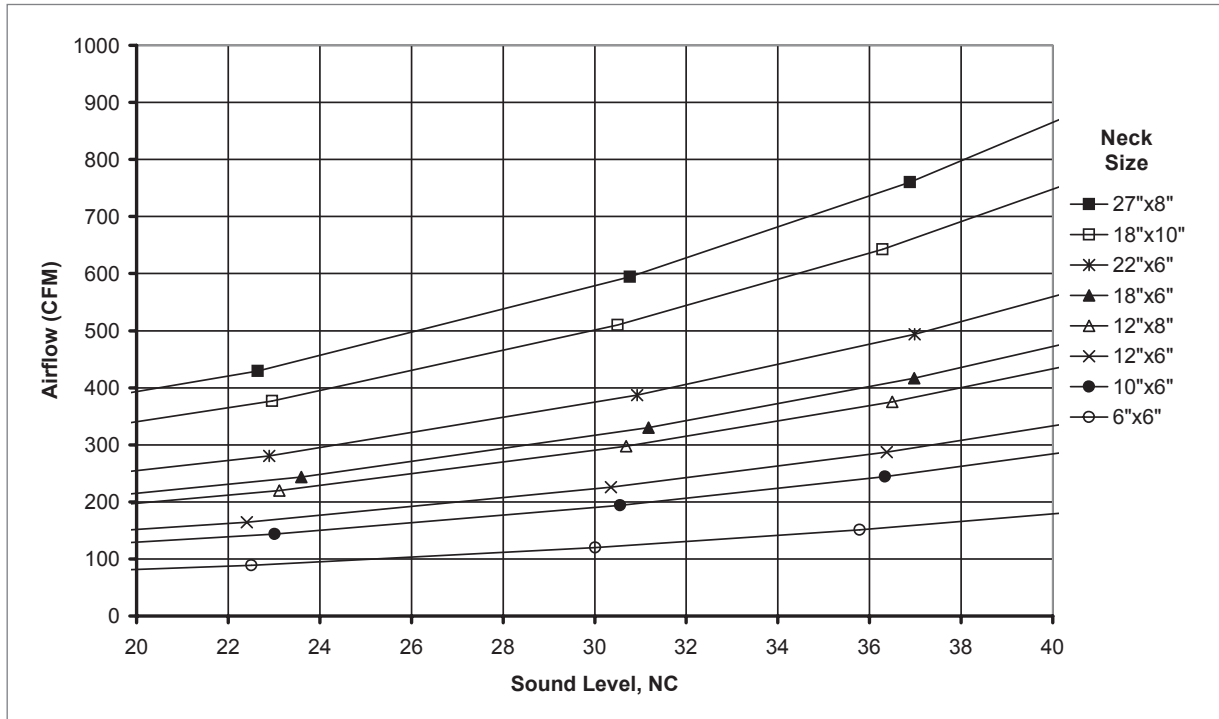
NOTE: Dimensions in parentheses are mm.

AFCS80, AFCS85 CONCEALED MOUNTING

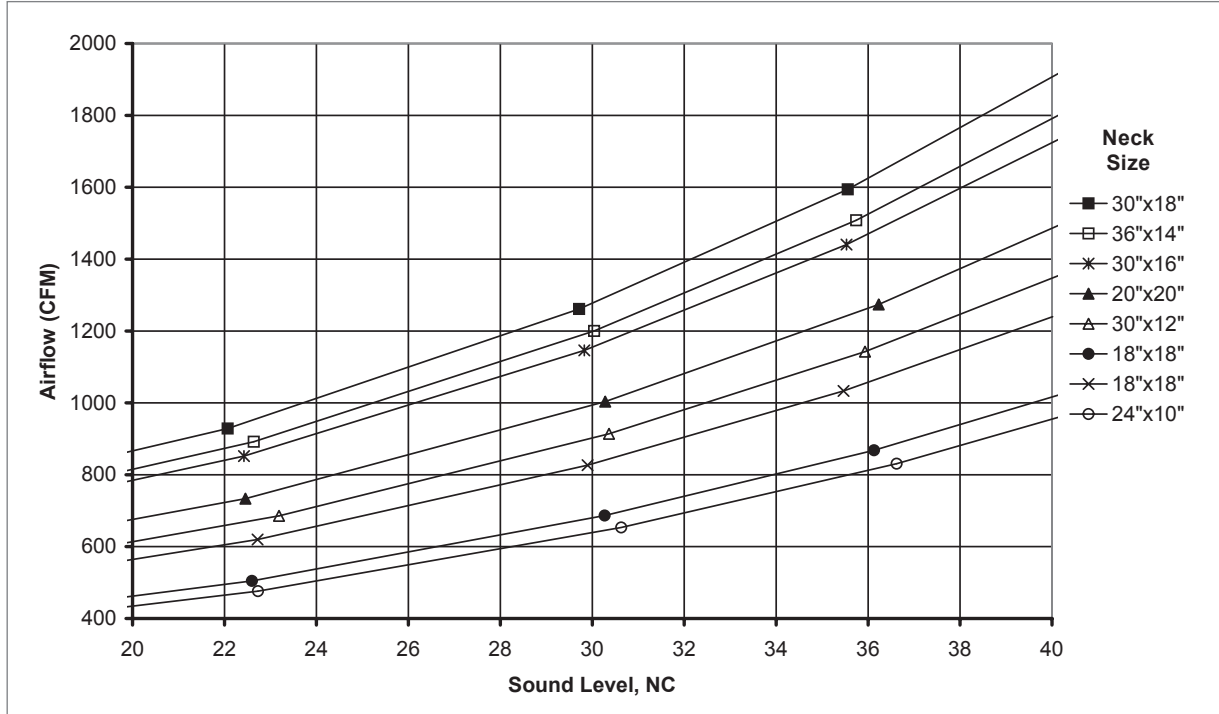


AFCS80 Reference Charts

AIRFLOW VS. NC: AFCS80, 45° DEFLECTION (NO DAMPER)

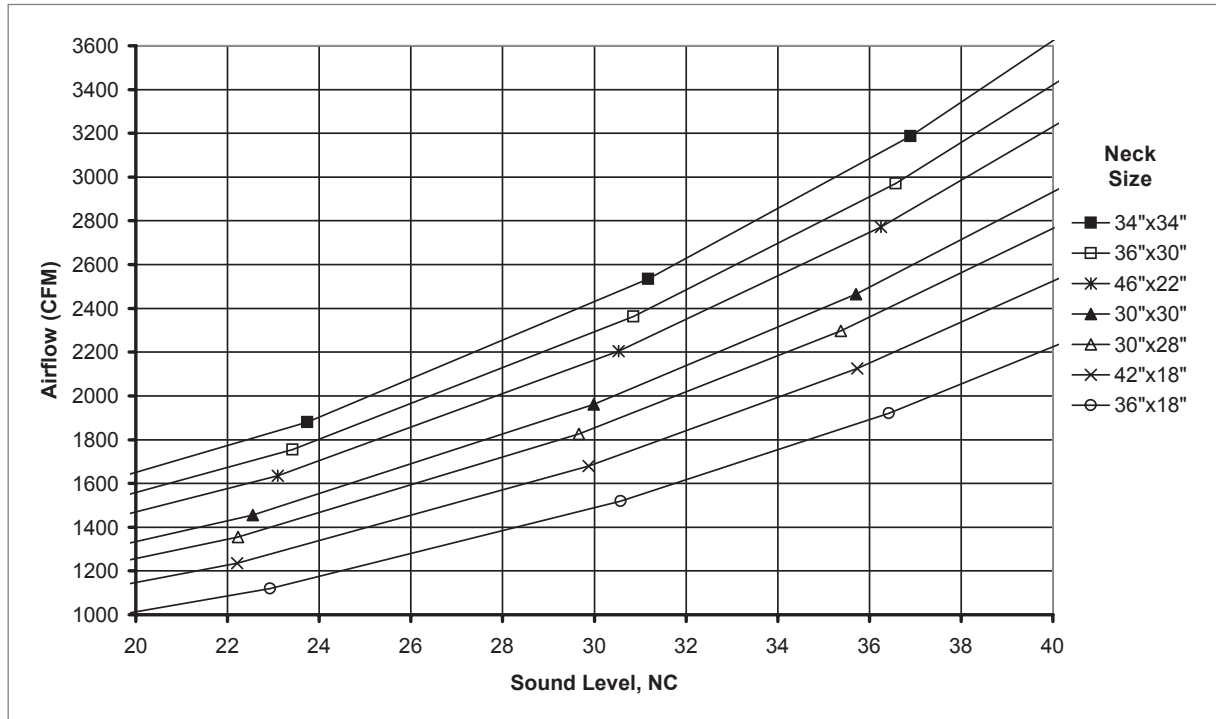


AIRFLOW VS. NC: AFCS80, 45° DEFLECTION (NO DAMPER)

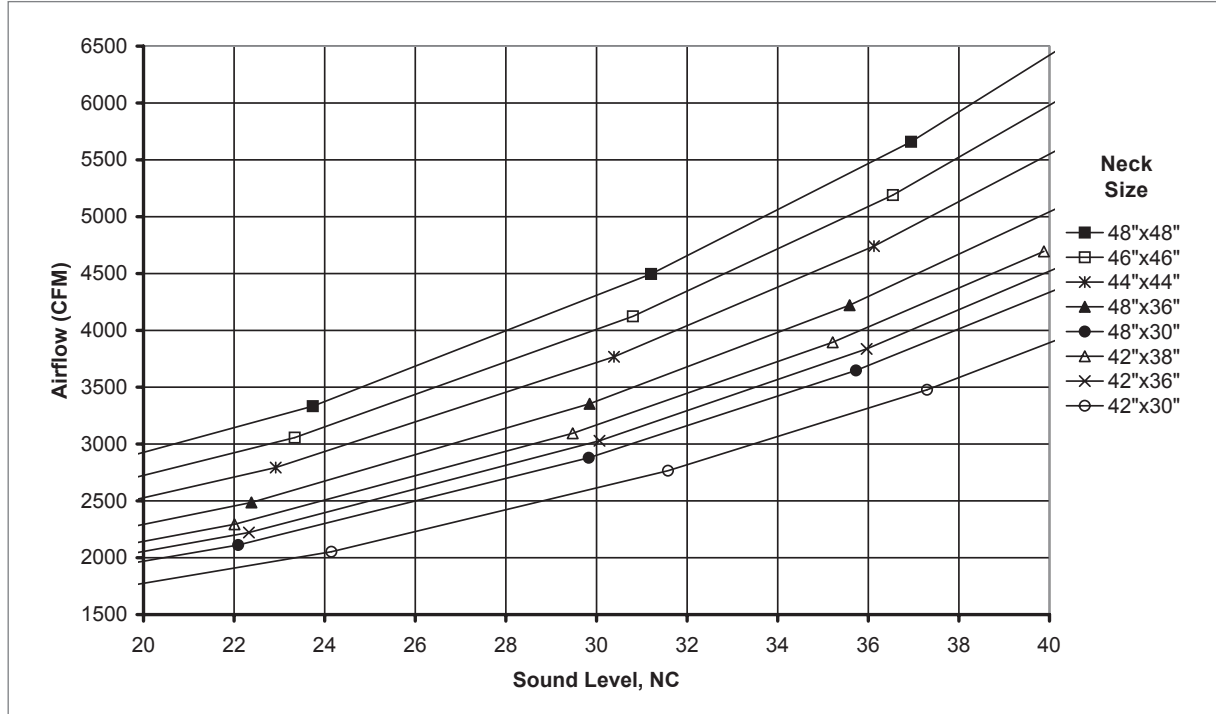


AFCS80 Reference Charts

AIRFLOW VS. NC: AFCS80, 45° DEFLECTION (NO DAMPER)



AIRFLOW VS. NC: AFCS80, 45° DEFLECTION (NO DAMPER)



RETURN GRILLES

AFCS80

AFCS80 Performance Data

IP/METRIC DATA: AFCS80, 45° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data					Octave Band, dB						
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps							
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7	
6" x 6"	0.25	300	57	-.042	12	152 x 152	0.02	1.52	27	-10.5	26	30	30	12	-	-	
		463	89	-.101	23			2.35	42	-25.1	34	39	39	27	22	19	
		625	120	-.184	30			3.18	56	-45.8	39	45	46	38	34	29	
		788	151	-.292	36			4.00	71	-72.7	43	50	51	46	42	37	
		950	182	-.425	40			4.83	86	-105.8	47	53	55	53	50	44	
10" x 6"	0.42	275	93	-.036	12	254 x 152	0.04	1.40	44	-8.9	27	31	30	12	-	-	
		425	143	-.085	23			2.16	68	-21.2	35	40	40	27	22	19	
		575	194	-.156	31			2.92	92	-38.8	40	46	46	38	33	29	
		725	244	-.247	36			3.68	115	-61.6	44	50	51	46	42	37	
		875	295	-.360	41			4.45	139	-89.7	47	54	56	53	49	44	
12" x 6"	0.50	250	103	-.029	11	305 x 152	0.05	1.27	48	-7.3	26	30	29	-	-	-	
		400	164	-.075	22			2.03	77	-18.8	34	39	39	26	21	18	
		550	226	-.142	30			2.79	106	-35.5	40	46	46	37	33	29	
		700	287	-.231	36			3.56	136	-57.4	44	50	52	46	42	37	
		850	349	-.340	41			4.32	165	-84.7	48	54	56	53	49	44	
12" x 8"	0.67	250	142	-.029	12	305 x 203	0.06	1.27	67	-7.3	27	31	30	11	-	-	
		388	219	-.071	23			1.97	104	-17.6	35	40	40	27	21	18	
		525	297	-.130	31			2.67	140	-32.3	40	46	47	37	33	29	
		663	375	-.207	36			3.37	177	-51.4	45	51	52	45	42	36	
		800	453	-.301	41			4.06	214	-75.0	48	54	56	52	49	43	
18" x 6"	0.75	250	157	-.029	13	457 x 152	0.07	1.27	74	-7.3	28	31	31	12	-	-	
		388	244	-.071	24			1.97	115	-17.6	35	40	40	27	22	19	
		525	330	-.130	31			2.67	156	-32.3	41	46	47	38	33	29	
		663	417	-.207	37			3.37	197	-51.4	45	51	52	46	42	37	
		800	503	-.301	42			4.06	237	-75.0	48	55	56	53	49	43	
22" x 6"	0.92	225	174	-.024	11	559 x 152	0.09	1.14	82	-5.9	27	30	29	-	-	-	
		363	281	-.062	23			1.84	133	-15.4	35	40	40	26	20	17	
		500	387	-.118	31			2.54	183	-29.3	41	46	47	37	32	28	
		638	494	-.191	37			3.24	233	-47.6	45	51	52	46	42	37	
		775	600	-.283	42			3.94	283	-70.4	49	55	56	53	49	43	
18" x 10"	1.25	220	244	-.023	12	457 x 254	0.12	1.12	115	-5.7	28	31	30	-	-	-	
		340	377	-.054	23			1.73	178	-13.6	35	40	40	25	20	17	
		460	510	-.100	30			2.34	241	-24.8	41	46	46	36	31	27	
		580	643	-.158	36			2.95	303	-39.4	45	51	51	44	40	35	
		700	776	-.231	41			3.56	366	-57.4	48	55	56	51	47	42	
27" x 8"	1.50	200	264	-.019	11	686 x 203	0.14	1.02	125	-4.7	27	30	29	-	-	-	
		325	430	-.050	23			1.65	203	-12.4	35	40	39	25	19	16	
		450	595	-.095	31			2.29	281	-23.7	41	46	47	36	31	27	
		575	760	-.156	37			2.92	359	-38.8	46	51	52	45	41	36	
		700	925	-.231	42			3.56	437	-57.4	49	55	56	52	48	42	
24" x 10"	1.67	200	299	-.019	11	610 x 254	0.15	1.02	141	-4.7	27	30	29	-	-	-	
		319	476	-.048	23			1.62	225	-11.9	36	40	40	25	19	16	
		438	653	-.090	31			2.22	308	-22.4	41	46	47	36	31	27	
		556	831	-.146	37			2.83	392	-36.3	45	51	52	44	40	35	
		675	1008	-.214	41			3.43	476	-53.4	49	55	56	51	47	42	
16" x 16"	1.78	200	323	-.019	11	406 x 406	0.17	1.02	152	-4.7	28	31	30	-	-	-	
		313	505	-.046	23			1.59	238	-11.4	35	40	39	24	18	16	
		425	686	-.085	30			2.16	324	-21.2	41	46	46	35	30	26	
		538	868	-.136	36			2.73	410	-33.9	45	51	51	43	39	34	
		650	1050	-.199	41			3.30	495	-49.5	49	55	56	50	46	41	
18" x 18"	2.25	200	413	-.019	13	457 x 457	0.21	1.02	195	-4.7	29	32	31	-	-	-	
		300	620	-.042	23			1.52	293	-10.5	36	40	40	24	18	15	
		400	827	-.075	30			2.03	390	-18.8	41	46	46	34	29	25	
		500	1033	-.118	35			2.54	488	-29.3	45	50	51	42	38	33	
		600	1240	-.169	40			3.05	585	-42.2	48	54	55	48	45	39	

NOTE: See notes on page J1-87.

RETURN GRILLES

AFCS80

AFCS80 Performance Data

IP/METRIC DATA: AFCS80, 45° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data					Octave Band, dB						
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps							
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7	
30" x 12"	2.50	200	457	-.019	13	762 x 305	0.23	1.02	216	-4.7	29	32	31	-	-	-	
		300	686	-.042	23			1.52	324	-10.5	36	40	40	25	19	16	
		400	914	-.075	30			2.03	431	-18.8	41	46	46	35	30	26	
		500	1143	-.118	36			2.54	539	-29.3	45	51	51	43	38	33	
		600	1371	-.169	40			3.05	647	-42.2	48	54	55	49	45	40	
20" x 20"	2.78	180	463	-.015	11	508 x 508	0.26	0.91	219	-3.8	28	31	29	-	-	-	
		285	733	-.038	22			1.45	346	-9.5	36	40	39	23	17	15	
		390	1004	-.072	30			1.98	474	-17.8	41	46	46	34	29	25	
		495	1274	-.115	36			2.51	601	-28.7	46	51	51	43	38	34	
		600	1544	-.169	41			3.05	729	-42.2	49	55	56	50	46	40	
30" x 16"	3.33	180	558	-.015	12	762 x 406	0.31	0.91	263	-3.8	28	31	30	-	-	-	
		275	852	-.036	22			1.40	402	-8.9	36	40	39	23	17	14	
		370	1146	-.064	30			1.88	541	-16.0	41	46	46	34	28	24	
		465	1440	-.102	36			2.36	680	-25.3	45	51	51	42	37	32	
		560	1735	-.148	40			2.84	819	-36.8	49	54	55	48	44	39	
36" x 14"	3.50	180	584	-.015	12	914 x 356	0.33	0.91	276	-3.8	29	32	30	-	-	-	
		275	892	-.036	23			1.40	421	-8.9	36	40	40	23	17	14	
		370	1200	-.064	30			1.88	566	-16.0	41	46	46	34	28	25	
		465	1508	-.102	36			2.36	712	-25.3	45	51	51	42	37	32	
		560	1816	-.148	40			2.84	857	-36.8	49	54	55	48	44	39	
30" x 18"	3.75	170	596	-.014	11	762 x 457	0.35	0.86	281	-3.4	28	31	29	-	-	-	
		265	929	-.033	22			1.35	438	-8.2	36	40	39	22	16	14	
		360	1261	-.061	30			1.83	595	-15.2	41	46	46	33	28	24	
		455	1594	-.097	36			2.31	752	-24.3	45	51	51	41	37	32	
		550	1927	-.142	40			2.79	910	-35.5	49	54	55	48	44	39	
36" x 18"	4.50	170	718	-.014	12	914 x 457	0.42	0.86	339	-3.4	29	31	30	-	-	-	
		265	1119	-.033	23			1.35	528	-8.2	36	40	40	23	17	14	
		360	1520	-.061	31			1.83	717	-15.2	42	47	47	34	29	25	
		455	1921	-.097	36			2.31	907	-24.3	46	51	52	42	38	33	
		550	2322	-.142	41			2.79	1096	-35.5	49	55	56	49	45	39	
42" x 18"	5.25	160	791	-.012	11	1067 x 457	0.49	0.81	373	-3.0	28	31	29	-	-	-	
		250	1235	-.029	22			1.27	583	-7.3	36	40	39	22	16	13	
		340	1680	-.054	30			1.73	793	-13.6	42	46	46	33	27	24	
		430	2125	-.087	36			2.18	1003	-21.7	46	51	51	41	36	32	
		520	2570	-.127	40			2.64	1213	-31.7	49	55	55	48	44	38	
30" x 28"	5.83	160	886	-.012	12	762 x 711	0.54	0.81	418	-3.0	29	31	30	-	-	-	
		245	1356	-.028	22			1.24	640	-7.0	36	40	39	22	16	13	
		330	1827	-.051	30			1.68	862	-12.8	41	46	46	32	27	23	
		415	2297	-.081	35			2.11	1084	-20.2	46	51	51	40	36	31	
		500	2768	-.118	40			2.54	1306	-29.3	49	54	55	47	43	37	
30" x 30"	6.25	160	951	-.012	12	762 x 762	0.58	0.81	449	-3.0	29	32	30	-	-	-	
		245	1456	-.028	23			1.24	687	-7.0	36	40	39	22	16	13	
		330	1961	-.051	30			1.68	925	-12.8	42	46	46	33	27	24	
		415	2466	-.081	36			2.11	1164	-20.2	46	51	51	41	36	31	
		500	2971	-.118	40			2.54	1402	-29.3	49	55	55	47	43	38	
46" x 22"	7.03	160	1068	-.012	12	1168 x 559	0.65	0.81	504	-3.0	29	32	31	-	-	-	
		245	1636	-.028	23			1.24	772	-7.0	37	41	40	23	17	14	
		330	2204	-.051	31			1.68	1040	-12.8	42	47	46	33	28	24	
		415	2771	-.081	36			2.11	1308	-20.2	46	51	52	41	37	32	
		500	3339	-.118	41			2.54	1576	-29.3	50	55	56	48	44	38	
36" x 30"	7.50	160	1146	-.012	13	914 x 762	0.70	0.81	541	-3.0	30	32	31	-	-	-	
		245	1754	-.028	23			1.24	828	-7.0	37	41	40	23	17	14	
		330	2363	-.051	31			1.68	1115	-12.8	42	47	47	34	28	24	
		415	2971	-.081	37			2.11	1402	-20.2	47	52	52	42	37	32	
		500	3580	-.118	41			2.54	1690	-29.3	50	55	56	48	44	39	

NOTE: See notes on page J1-87.

AFCS80 Performance Data

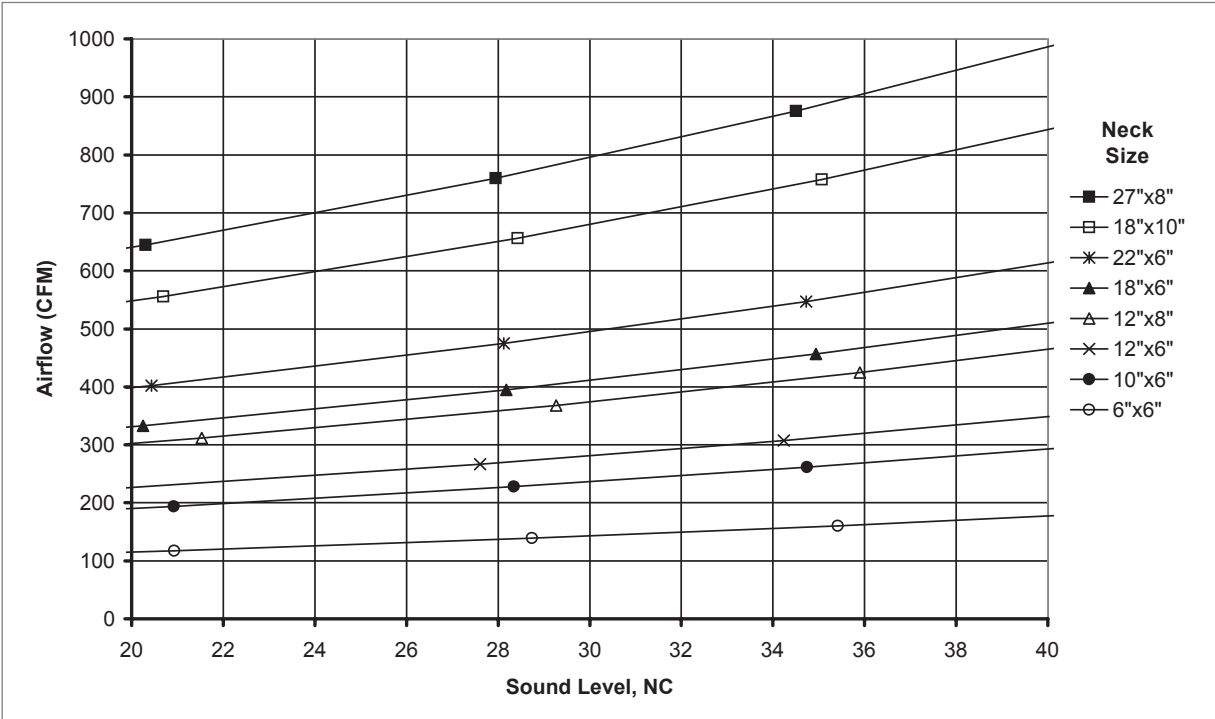
IP/METRIC DATA: AFCS80, 45° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data					Octave Band, dB						
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps							
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7	
34" x 34"	8.03	160	1228	-.012	13	864 x 864	0.75	0.81	580	-3.0	30	33	31	-	-	-	
		245	1881	-.028	24			1.24	888	-7.0	37	41	41	24	17	14	
		330	2534	-.051	31			1.68	1196	-12.8	43	47	47	34	29	25	
		415	3186	-.081	37			2.11	1504	-20.2	47	52	52	42	37	33	
		500	3839	-.118	42			2.54	1812	-29.3	50	56	56	49	45	39	
42" x 30"	8.75	160	1341	-.012	14	1067 x 762	0.81	0.81	633	-3.0	30	33	32	-	-	-	
		245	2053	-.028	24			1.24	969	-7.0	38	42	41	24	18	15	
		330	2765	-.051	32			1.68	1305	-12.8	43	48	47	35	29	25	
		415	3477	-.081	37			2.11	1641	-20.2	47	52	52	43	38	33	
		500	4189	-.118	42			2.54	1977	-29.3	51	56	57	49	45	39	
48" x 30"	10.00	140	1344	-.009	11	1219 x 762	0.93	0.71	634	-2.3	28	31	29	-	-	-	
		220	2111	-.023	22			1.12	997	-5.7	36	40	39	21	14	12	
		300	2879	-.042	30			1.52	1359	-10.5	42	46	46	32	26	22	
		380	3647	-.068	36			1.93	1721	-16.9	46	51	51	40	35	31	
		460	4415	-.100	40			2.34	2084	-24.8	50	55	55	47	43	37	
42" x 36"	10.50	140	1414	-.009	11	1067 x 914	0.98	0.71	667	-2.3	29	31	29	-	-	-	
		220	2221	-.023	22			1.12	1048	-5.7	37	40	39	21	15	12	
		300	3029	-.042	30			1.52	1430	-10.5	42	47	46	32	26	23	
		380	3837	-.068	36			1.93	1811	-16.9	46	51	51	40	35	31	
		460	4645	-.100	41			2.34	2192	-24.8	50	55	55	47	43	37	
42" x 38"	11.08	140	1494	-.009	11	1067 x 965	1.03	0.71	705	-2.3	29	31	30	-	-	-	
		215	2294	-.022	22			1.09	1083	-5.4	36	40	39	21	14	12	
		290	3094	-.040	29			1.47	1460	-9.9	42	46	46	31	25	22	
		365	3895	-.063	35			1.85	1838	-15.6	46	51	51	39	34	30	
		440	4695	-.091	40			2.24	2216	-22.7	49	55	55	46	41	36	
48" x 36"	12.00	140	1619	-.009	12	1219 x 914	1.11	0.71	764	-2.3	29	32	30	-	-	-	
		215	2487	-.022	22			1.09	1174	-5.4	37	40	39	21	14	12	
		290	3354	-.040	30			1.47	1583	-9.9	42	46	46	32	26	22	
		365	4222	-.063	36			1.85	1992	-15.6	46	51	51	40	35	30	
		440	5089	-.091	40			2.24	2402	-22.7	50	55	55	46	42	36	
44" x 44"	13.44	140	1819	-.009	12	1118 x 1118	1.25	0.71	858	-2.3	30	32	30	-	-	-	
		215	2793	-.022	23			1.09	1318	-5.4	37	41	40	22	15	12	
		290	3767	-.040	30			1.47	1778	-9.9	43	47	46	32	26	23	
		365	4741	-.063	36			1.85	2238	-15.6	47	52	51	40	35	31	
		440	5716	-.091	41			2.24	2697	-22.7	50	55	56	47	42	37	
46" x 46"	14.69	140	1991	-.009	13	1168 x 1168	1.37	0.71	939	-2.3	30	33	31	-	-	-	
		215	3057	-.022	23			1.09	1443	-5.4	38	41	40	22	16	13	
		290	4124	-.040	31			1.47	1946	-9.9	43	47	47	33	27	23	
		365	5190	-.063	37			1.85	2449	-15.6	47	52	52	41	36	31	
		440	6256	-.091	41			2.24	2953	-22.7	50	56	56	47	43	37	
48" x 48"	16.00	140	2171	-.009	13	1219 x 1219	1.49	0.71	1024	-2.3	30	33	31	-	-	-	
		215	3333	-.022	24			1.09	1573	-5.4	38	42	41	23	16	13	
		290	4496	-.040	31			1.47	2122	-9.9	43	48	47	33	27	24	
		365	5659	-.063	37			1.85	2671	-15.6	47	52	52	41	36	31	
		440	6822	-.091	42			2.24	3219	-22.7	51	56	56	48	43	38	

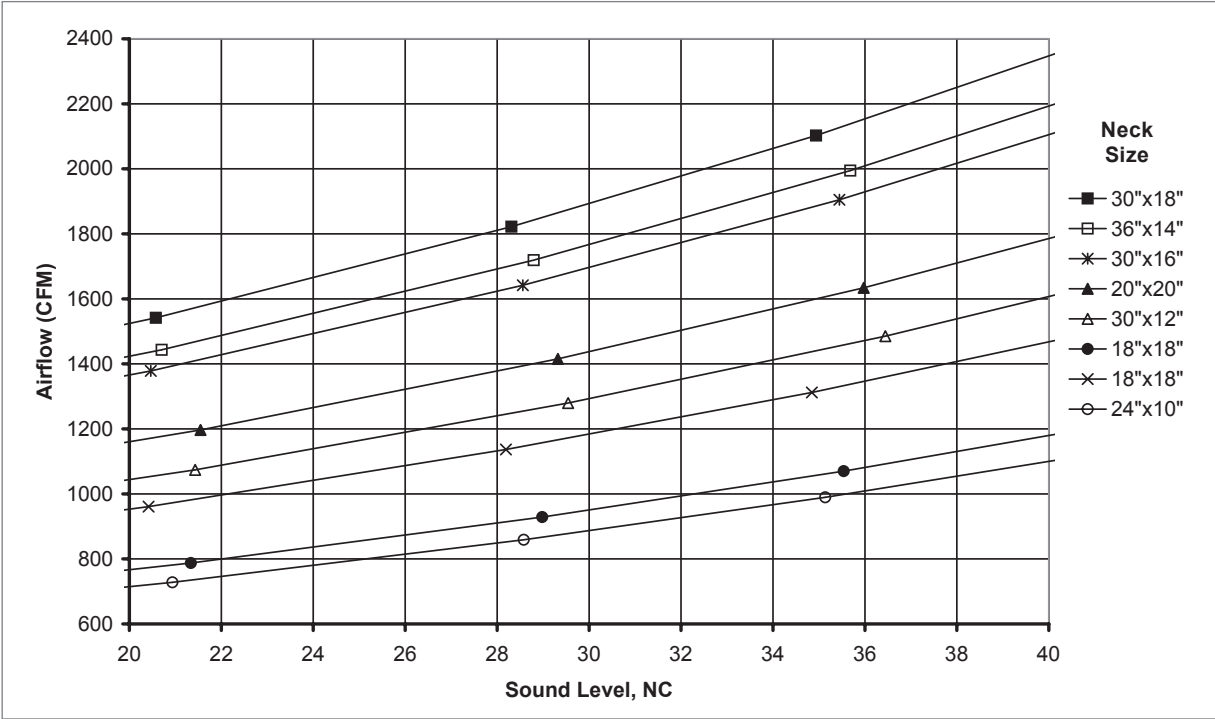
NOTES: NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC or dB value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See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

AFCS85 Reference Charts

AIRFLOW VS. NC: AFCS85, 30° DEFLECTION (NO DAMPER)

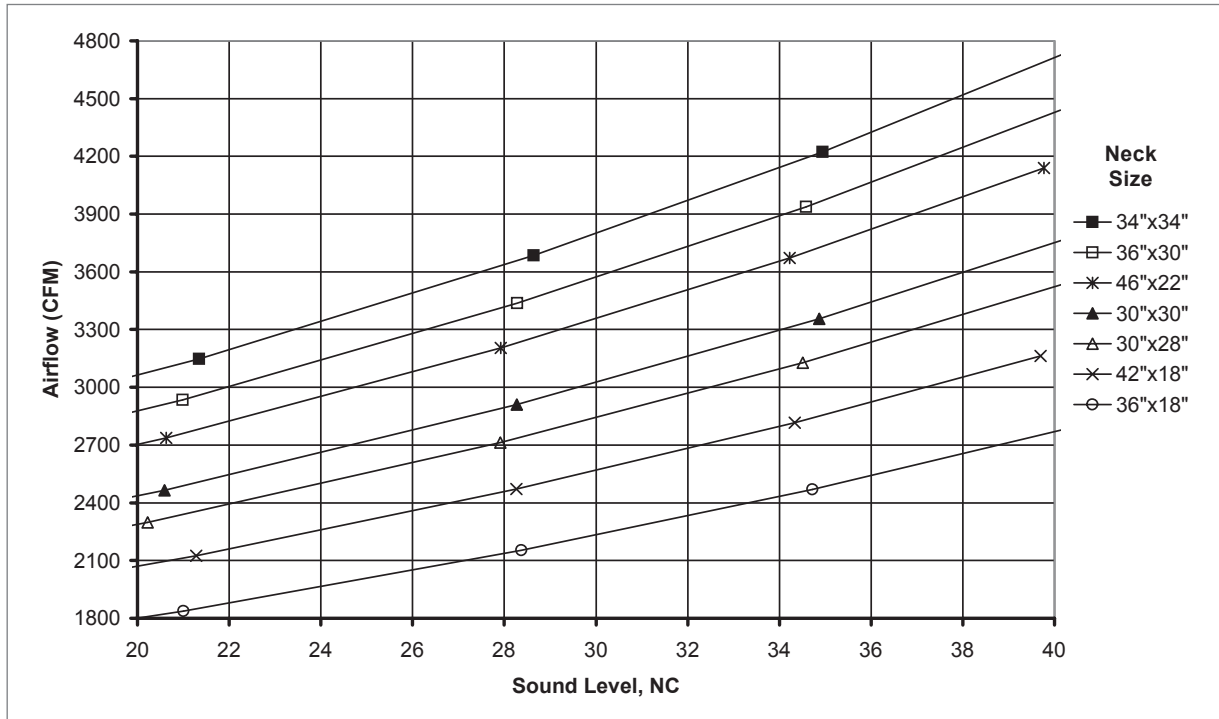
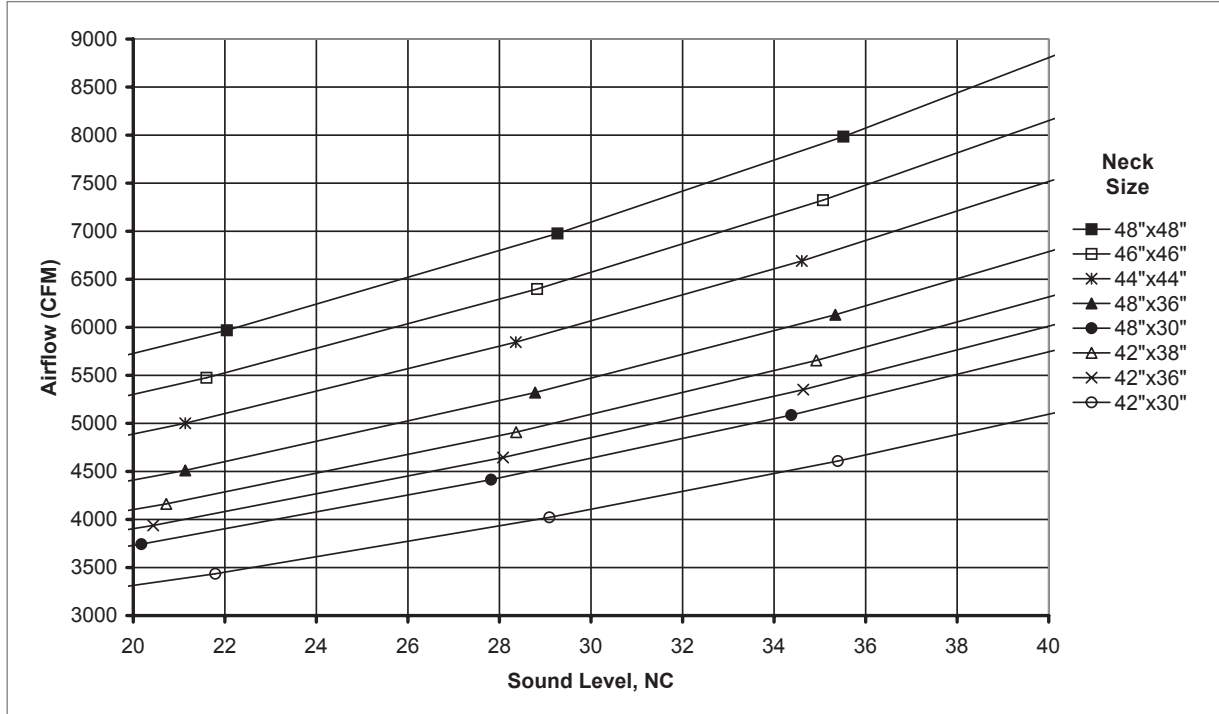


AIRFLOW VS. NC: AFCS85, 30° DEFLECTION (NO DAMPER)



RETURN GRILLES

AFCS85

AFCS85 Reference Charts
AIRFLOW VS. NC: AFCS85, 30° DEFLECTION (NO DAMPER)

AIRFLOW VS. NC: AFCS85, 30° DEFLECTION (NO DAMPER)


AFCS85 Performance Data

IP/METRIC DATA: AFCS85, 30° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data											
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps							
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7	
6" x 6"	0.25	500	96	-0.049	12	152 x 152	0.02	2.54	45	-12.1	23	28	29	16	11	-	
		613	117	-.073	21			3.11	55	-18.2	31	36	37	28	23	20	
		725	139	-.102	29			3.68	65	-25.4	37	43	44	38	34	29	
		838	160	-.136	35			4.25	76	-33.9	42	49	50	46	43	38	
		950	182	-.175	41			4.83	86	-43.7	47	54	56	54	51	45	
10" x 6"	0.42	475	160	-.044	12	254 x 152	0.04	2.41	76	-10.9	24	29	29	16	11	-	
		575	194	-.064	21			2.92	92	-16.0	31	37	37	27	23	19	
		675	228	-.089	28			3.43	107	-22.0	37	43	44	37	33	28	
		775	261	-.117	35			3.94	123	-29.1	42	48	50	45	41	36	
		875	295	-.149	40			4.45	139	-37.0	46	53	55	52	49	43	
12" x 6"	0.50	450	185	-.039	11	305 x 152	0.05	2.29	87	-9.8	23	28	28	14	-	-	
		550	226	-.059	20			2.79	106	-14.6	30	36	36	26	21	17	
		650	267	-.082	28			3.30	126	-20.4	36	42	43	36	32	27	
		750	308	-.109	34			3.81	145	-27.2	42	48	49	44	41	35	
		850	349	-.140	40			4.32	165	-35.0	46	53	54	52	48	42	
12" x 8"	0.67	450	255	-.039	12	305 x 203	0.06	2.29	120	-9.8	24	29	29	16	11	-	
		550	312	-.059	22			2.79	147	-14.6	32	37	38	28	23	19	
		650	368	-.082	29			3.30	174	-20.4	38	44	45	38	34	29	
		750	425	-.109	36			3.81	200	-27.2	43	49	51	46	42	37	
		850	481	-.140	42			4.32	227	-35.0	48	54	56	53	50	44	
18" x 6"	0.75	430	270	-.036	11	457 x 152	0.07	2.18	128	-8.9	23	28	28	14	-	-	
		529	333	-.054	20			2.69	157	-13.5	31	36	36	26	21	17	
		628	395	-.077	28			3.19	186	-19.1	37	43	44	36	32	27	
		726	457	-.102	35			3.69	216	-25.5	42	49	50	45	41	36	
		825	519	-.132	41			4.19	245	-32.9	47	54	55	52	49	43	
22" x 6"	0.92	425	329	-.035	11	559 x 152	0.09	2.16	155	-8.7	24	28	28	14	-	-	
		519	402	-.052	20			2.64	190	-13.0	31	36	37	26	21	17	
		613	475	-.073	28			3.11	224	-18.2	37	43	44	36	32	27	
		706	547	-.097	35			3.59	258	-24.1	42	48	50	44	41	35	
		800	620	-.124	40			4.06	293	-31.0	47	53	55	52	48	42	
18" x 10"	1.25	410	454	-.033	11	457 x 254	0.12	2.08	214	-8.1	24	29	28	14	-	-	
		501	555	-.049	21			2.55	262	-12.2	31	37	37	26	21	17	
		593	657	-.068	28			3.01	310	-17.0	37	43	44	36	32	27	
		684	758	-.091	35			3.47	358	-22.6	43	49	50	44	41	35	
		775	859	-.117	41			3.94	405	-29.1	47	54	55	52	48	42	
27" x 8"	1.50	400	529	-.031	11	686 x 203	0.14	2.03	249	-7.7	24	28	28	14	-	-	
		488	644	-.046	20			2.48	304	-11.5	31	36	36	25	20	17	
		575	760	-.064	28			2.92	359	-16.0	37	43	43	35	31	26	
		663	876	-.085	35			3.37	413	-21.2	42	48	49	43	40	34	
		750	991	-.109	40			3.81	468	-27.2	47	53	54	51	47	41	
24" x 10"	1.67	400	597	-.031	12	610 x 254	0.15	2.03	282	-7.7	24	29	29	14	-	-	
		488	728	-.046	21			2.48	344	-11.5	32	37	37	26	21	17	
		575	859	-.064	29			2.92	405	-16.0	38	43	44	36	31	27	
		663	989	-.085	35			3.37	467	-21.2	43	49	50	44	40	35	
		750	1120	-.109	41			3.81	529	-27.2	47	54	55	51	48	42	
16" x 16"	1.78	400	646	-.031	12	406 x 406	0.17	2.03	305	-7.7	25	29	29	15	-	-	
		488	787	-.046	21			2.48	372	-11.5	32	37	37	26	22	18	
		575	929	-.064	29			2.92	438	-16.0	38	44	44	36	32	27	
		663	1070	-.085	36			3.37	505	-21.2	43	49	50	45	41	35	
		750	1211	-.109	41			3.81	572	-27.2	48	54	55	52	49	42	
18" x 18"	2.25	380	785	-.028	11	457 x 457	0.21	1.93	371	-7.0	24	28	28	13	-	-	
		465	961	-.042	20			2.36	453	-10.5	31	36	37	25	20	16	
		550	1137	-.059	28			2.79	536	-14.6	38	43	44	35	31	26	
		635	1312	-.078	35			3.23	619	-19.5	43	49	50	43	40	34	
		720	1488	-.101	41			3.66	702	-25.1	47	54	55	51	47	41	

NOTE: See notes on page J1-92.

AFCS85 Performance Data

IP/METRIC DATA: AFCS85, 30° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data					Octave Band, dB					
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps						
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7
30" x 12"	2.50	380	868	-.028	12	762 x 305	0.23	1.93	410	-7.0	24	29	29	14	-	-
		470	1074	-.043	21			2.39	507	-10.7	32	37	37	26	21	17
		560	1280	-.061	30			2.84	604	-15.2	39	44	45	37	32	27
		650	1485	-.082	36			3.30	701	-20.4	44	50	51	45	42	36
		740	1691	-.106	42			3.76	798	-26.5	49	55	56	53	50	43
20" x 20"	2.78	380	978	-.028	12	508 x 508	0.26	1.93	462	-7.0	25	29	29	14	-	-
		465	1197	-.042	22			2.36	565	-10.5	32	37	37	26	21	17
		550	1415	-.059	29			2.79	668	-14.6	38	44	45	36	32	27
		635	1634	-.078	36			3.23	771	-19.5	44	50	51	45	41	35
		720	1853	-.101	42			3.66	874	-25.1	48	55	56	52	49	42
30" x 16"	3.33	360	1115	-.025	11	762 x 406	0.31	1.83	526	-6.3	24	28	28	12	-	-
		445	1378	-.038	20			2.26	651	-9.6	32	36	36	25	20	16
		530	1642	-.055	29			2.69	775	-13.6	38	43	44	35	31	26
		615	1905	-.074	35			3.12	899	-18.3	43	49	50	44	40	34
		700	2168	-.095	41			3.56	1023	-23.7	48	54	55	52	48	42
36" x 14"	3.50	360	1168	-.025	11	914 x 356	0.33	1.83	551	-6.3	24	28	28	13	-	-
		445	1443	-.038	21			2.26	681	-9.6	32	37	37	25	20	16
		530	1719	-.055	29			2.69	811	-13.6	38	44	44	35	31	26
		615	1995	-.074	36			3.12	941	-18.3	44	49	50	44	40	35
		700	2270	-.095	42			3.56	1072	-23.7	48	55	56	52	48	42
30" x 18"	3.75	360	1261	-.025	11	762 x 457	0.35	1.83	595	-6.3	24	29	28	13	-	-
		440	1542	-.038	21			2.24	728	-9.4	32	37	37	25	20	16
		520	1822	-.053	28			2.64	860	-13.1	38	43	44	35	30	25
		600	2102	-.070	35			3.05	992	-17.4	43	49	50	43	39	34
		680	2383	-.090	41			3.45	1124	-22.4	48	54	55	50	47	41
36" x 18"	4.50	360	1520	-.025	12	914 x 457	0.42	1.83	717	-6.3	25	29	29	14	-	-
		435	1837	-.037	21			2.21	867	-9.2	32	37	37	25	20	16
		510	2154	-.051	28			2.59	1016	-12.6	38	43	44	35	30	25
		585	2470	-.067	35			2.97	1166	-16.6	43	49	49	43	39	33
		660	2787	-.085	40			3.35	1315	-21.1	47	53	54	50	46	40
42" x 18"	5.25	360	1779	-.025	13	1067 x 457	0.49	1.83	840	-6.3	26	30	30	15	-	-
		430	2125	-.036	21			2.18	1003	-8.9	32	37	37	25	20	16
		500	2471	-.049	28			2.54	1166	-12.1	38	43	43	34	30	25
		570	2817	-.063	34			2.90	1329	-15.7	43	48	49	42	38	32
		640	3163	-.080	40			3.25	1493	-19.8	47	53	54	49	45	39
30" x 28"	5.83	340	1882	-.022	11	762 x 711	0.54	1.73	888	-5.6	24	28	28	12	-	-
		415	2297	-.033	20			2.11	1084	-8.3	32	36	36	24	19	15
		490	2712	-.047	28			2.49	1280	-11.6	38	43	43	34	29	24
		565	3127	-.062	35			2.87	1476	-15.4	43	49	49	42	38	32
		640	3543	-.080	40			3.25	1672	-19.8	47	53	54	49	46	40
30" x 30"	6.25	340	2020	-.022	11	762 x 762	0.58	1.73	953	-5.6	25	29	28	13	-	-
		415	2466	-.033	21			2.11	1164	-8.3	32	37	37	24	19	15
		490	2911	-.047	28			2.49	1374	-11.6	38	43	43	34	30	25
		565	3357	-.062	35			2.87	1584	-15.4	43	49	49	43	38	33
		640	3803	-.080	41			3.25	1795	-19.8	48	54	55	50	46	40
46" x 22"	7.03	340	2270	-.022	12	1168 x 559	0.65	1.73	1071	-5.6	25	29	29	13	-	-
		410	2738	-.033	21			2.08	1292	-8.1	32	37	37	24	19	15
		480	3205	-.045	28			2.44	1513	-11.1	38	43	43	34	29	24
		550	3673	-.059	34			2.79	1733	-14.6	43	48	49	42	37	32
		620	4140	-.075	40			3.15	1954	-18.6	47	53	54	49	45	39
36" x 30"	7.50	340	2434	-.022	12	914 x 762	0.70	1.73	1149	-5.6	25	30	29	14	-	-
		410	2936	-.033	21			2.08	1385	-8.1	32	37	37	25	19	15
		480	3437	-.045	28			2.44	1622	-11.1	38	43	43	34	29	24
		550	3938	-.059	35			2.79	1859	-14.6	43	49	49	42	38	32
		620	4439	-.075	40			3.15	2095	-18.6	47	53	54	49	45	39

NOTE: See notes on page J1-92.

AFCS85 Performance Data

IP/METRIC DATA: AFCS85, 30° DEFLECTION (NO DAMPER)

IP Data					NC	Metric Data											
Nom Duct	Duct Area	Neck Vel	Air Flow	Ps		Nom Duct	Duct Area	Neck Vel	Air Flow	Ps							
in	ft²	FPM	CFM	"WG		mm	m²	m/s	L/s	Pa	2	3	4	5	6	7	
34" x 34"	8.03	340	2610	-0.22	13	864 x 864	0.75	1.73	1232	-5.6	26	30	29	14	-	-	
		410	3148	-0.33	21			2.08	1486	-8.1	33	37	37	25	20	16	
		480	3685	-0.45	29			2.44	1739	-11.1	38	44	44	34	30	25	
		550	4223	-0.59	35			2.79	1993	-14.6	43	49	49	42	38	33	
		620	4760	-0.75	40			3.15	2246	-18.6	48	54	55	49	46	39	
42" x 30"	8.75	340	2849	-0.22	13	1067 x 762	0.81	1.73	1344	-5.6	26	30	30	14	-	-	
		410	3435	-0.33	22			2.08	1621	-8.1	33	38	38	26	20	16	
		480	4022	-0.45	29			2.44	1898	-11.1	39	44	44	35	30	25	
		550	4608	-0.59	35			2.79	2175	-14.6	44	49	50	43	39	33	
		620	5195	-0.75	41			3.15	2452	-18.6	48	54	55	50	46	40	
48" x 30"	10.00	320	3071	-0.20	11	1219 x 762	0.93	1.63	1449	-5.0	25	29	28	12	-	-	
		390	3743	-0.30	20			1.98	1767	-7.4	32	36	36	23	18	14	
		460	4415	-0.41	28			2.34	2084	-10.2	38	43	43	33	28	23	
		530	5087	-0.55	34			2.69	2401	-13.6	43	49	49	41	37	32	
		600	5759	-0.70	40			3.05	2718	-17.4	48	53	54	49	45	39	
42" x 36"	10.50	320	3231	-0.20	11	1067 x 914	0.98	1.63	1525	-5.0	25	29	28	12	-	-	
		390	3938	-0.30	20			1.98	1859	-7.4	32	37	36	24	18	14	
		460	4645	-0.41	28			2.34	2192	-10.2	38	43	43	33	29	24	
		530	5352	-0.55	35			2.69	2526	-13.6	43	49	49	42	38	32	
		600	6059	-0.70	40			3.05	2859	-17.4	48	54	54	49	45	39	
42" x 38"	11.08	320	3415	-0.20	12	1067 x 965	1.03	1.63	1612	-5.0	25	29	28	12	-	-	
		390	4162	-0.30	21			1.98	1964	-7.4	32	37	37	24	19	14	
		460	4908	-0.41	28			2.34	2317	-10.2	38	43	44	34	29	24	
		530	5655	-0.55	35			2.69	2669	-13.6	43	49	49	42	38	32	
		600	6402	-0.70	41			3.05	3022	-17.4	48	54	55	49	46	39	
48" x 36"	12.00	320	3701	-0.20	12	1219 x 914	1.11	1.63	1747	-5.0	25	29	29	13	-	-	
		390	4511	-0.30	21			1.98	2129	-7.4	33	37	37	24	19	15	
		460	5321	-0.41	29			2.34	2511	-10.2	39	44	44	34	29	24	
		530	6130	-0.55	35			2.69	2893	-13.6	44	49	50	42	38	33	
		600	6940	-0.70	41			3.05	3275	-17.4	48	54	55	50	46	40	
44" x 44"	13.44	320	4157	-0.20	13	1118 x 1118	1.25	1.63	1962	-5.0	26	30	29	13	-	-	
		385	5001	-0.29	21			1.96	2360	-7.2	33	37	37	24	19	15	
		450	5846	-0.39	28			2.29	2759	-9.8	38	43	43	33	29	24	
		515	6690	-0.52	35			2.62	3157	-12.8	43	49	49	41	37	31	
		580	7534	-0.65	40			2.95	3556	-16.3	48	53	54	48	45	38	
46" x 46"	14.69	320	4550	-0.20	13	1168 x 1168	1.37	1.63	2147	-5.0	26	30	30	14	-	-	
		385	5474	-0.29	22			1.96	2584	-7.2	33	38	37	25	20	15	
		450	6399	-0.39	29			2.29	3020	-9.8	39	44	44	34	29	24	
		515	7323	-0.52	35			2.62	3456	-12.8	44	49	50	42	38	32	
		580	8247	-0.65	41			2.95	3892	-16.3	48	54	55	49	45	39	
48" x 48"	16.00	320	4961	-0.20	13	1219 x 1219	1.49	1.63	2341	-5.0	27	31	30	14	-	-	
		385	5969	-0.29	22			1.96	2817	-7.2	33	38	38	25	20	16	
		450	6977	-0.39	29			2.29	3293	-9.8	39	44	44	34	30	25	
		515	7985	-0.52	36			2.62	3768	-12.8	44	50	50	42	38	32	
		580	8992	-0.65	41			2.95	4244	-16.3	48	54	55	49	46	39	

NOTES: NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² 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.

AFCS80, AFCS85 Suggested Specification & Configuration

1. SERIES: (XXXXXX)

- AFCS80 - Curved Blade, 3/4" Blade Spacing, 45° Deflection, Steel Return Grille
 AFCS85 - Curved Blade, 1/2" Blade Spacing, 30° Deflection, Steel Return Grille

2. PATTERN: (X)

- H - Horizontal Front Blades
 V - Vertical Front Blades

3. WIDTH: (XX) *

- 6" - 96" in 2" Increments

4. HEIGHT: (XX) *

- 4" - 96" in 2" Increments

5. FRAME STYLE: (XXX)

- F22 - Surface Mount
 F23 - Lay-in T-Bar
 FTB - Channel Frame *

6. PANEL: (XX)x(XX) **

- NONE 24"x24"
 12"x24" 24"x48"

7. FASTENING METHOD: (XX)

- 00 - No Screw Holes
 01 - Standard Screw Holes
 02 - Concealed Mounting ***
 03 - Knurled Knob ‡
 08 - 1/4 Turn Fasteners ‡

8. DAMPER: (XX)

- 00 - No Damper
 01 - Steel Opposed Blade Damper (Model OBD)
 15 - Aluminum Opposed Blade Damper (Model 5OBD)

9. ACCESSORIES: (XX) (XX)

- 00 - No Accessories IS - Insect Screen, 1/16" Mesh ◊
 01 - Plaster Frame DS - Debris Screen, 1/4" Mesh ◊
 04 - 1" Filter Frame ◊◊
 05 - 2" Filter Frame ◊◊

10. FINISH: (XX)

- 01 - Mill 10 - Alumican 81 - Clear Anodize
 35 - Black 44 - British White

* FTB Channel Frame not available on grilles larger than 48"x48".

** Minimum of 4" difference is required between neck size and panel size.

*** Concealed mounting not available on grilles larger than 36"x36" or Patterns H or V.

‡ Knurled knob and 1/4 Turn Fasteners only available with filter frame accessories.

◊ Accessories IS and DS available on sizes up to 48"x48".

◊◊ Accessories 04 and 05 available on sizes 8"x8" to 48"x36".

AFCS80, AFCS85

The return grille shall be a Krueger model AFCS80 (3/4" blade spacing) or AFCS85 (1/2" blade spacing). This grille must have curved blades resulting in a fixed deflection of 45° for the AFCS80 or 30° for the AFCS85. The curved blades shall be constructed of no less than 20 gage steel. The blades must be held in place by mullions placed behind the grille and welded to the frame. The frame of the grille must be constructed of no less than 20 gage steel with countersunk screw holes. This frame must also produce a border of 1 1/4" around all sides of the grille with mitered corners.

Optional damper shall be available made of heavy gage steel (OBD) or aluminum (5OBD) and operable from the face of the return grille.

PERFORMANCE

The manufacturer shall provide published performance data for the grille. The grille 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.

SAMPLE CONFIGURATION: AFCS80 - V - 24x24 - F22 - 12"x24" - 01 - 01 - 00 - 44