

INTRODUCTION

The S480 heavy duty steel return grilles are designed for gymnasium applications that require grilles that resist accidental abuse from gymnasium equipment such as basketballs and dodge balls impacting the surface of the grilles. It offers fixed 1/2" blade spacing with 38° deflection or 3/8" spacing with 0° deflection and a 1 1/4" flange. The 14 gage blades can stand up to the accidental collision of most gymnasium equipment making the S480 the ideal choice.

The S5480 heavy duty aluminum return grilles add extra protection against corrosion in humid conditions. It offers fixed 1/2" blade spacing with 30° or 0° deflection and a 1 1/4" flange. The extruded aluminum blades can stand up to the accidental collision of most gymnasium equipment making the S5480 the ideal choice for gymnasiums in humid conditions.

If the application requires large amounts of air to be returned through the return grille, then the blade deflection of 0° should be used to keep the pressure drop and sound to a minimum.

MODELS

S480 - Steel, fixed deflection, heavy duty return grille

S5480 - Aluminum, fixed deflection, heavy duty return grille

S480 FEATURES

- 1/2" blade spacing at 38° blade deflection
- 3/8" blade spacing at 0° blade deflection
- Horizontal (H) or vertical (V) front blades
- Standard finish is #44 British White
- Optional finishes available

S480 ACCESSORIES

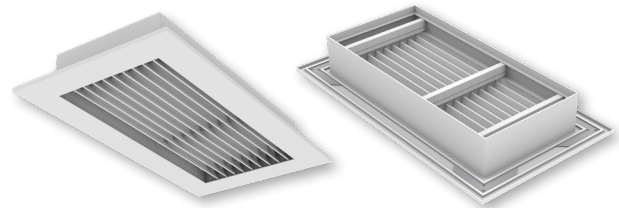
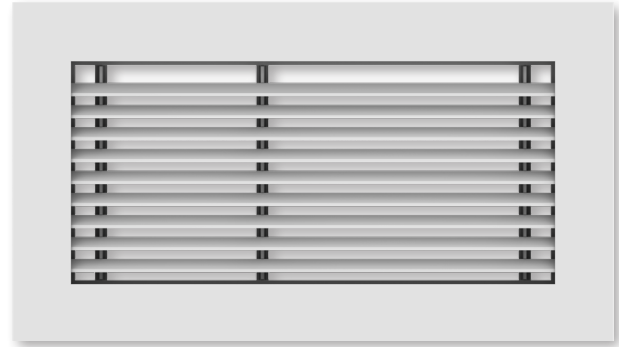
- Steel opposed blade damper (model OBD)
- Steel painted opposed blade damper (model POBD)
- Square to round adapter (model SRAC325)
- Plaster frame (model 8PF)
- 1" filter frame - Minimum size is 8"x8" and maximum size is 24"x24" (model 5FF)

S5480 FEATURES

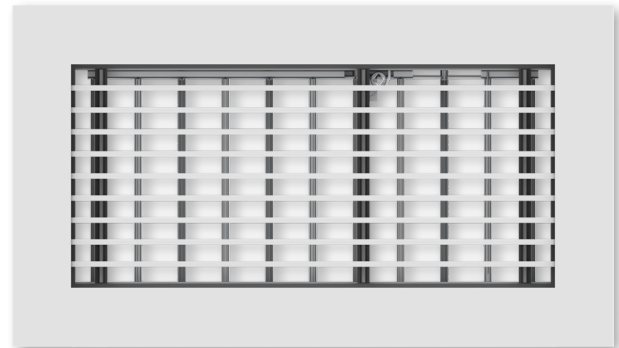
- 1/2" blade spacing at 30° or 0° blade deflection
- Horizontal (H) or vertical (V) front blades
- Standard finish is #44 British White
- Optional finishes available

S5480 ACCESSORIES

- Heavy duty aluminum opposed blade damper (model S5480OBD)



S5480 at 30° Deflection



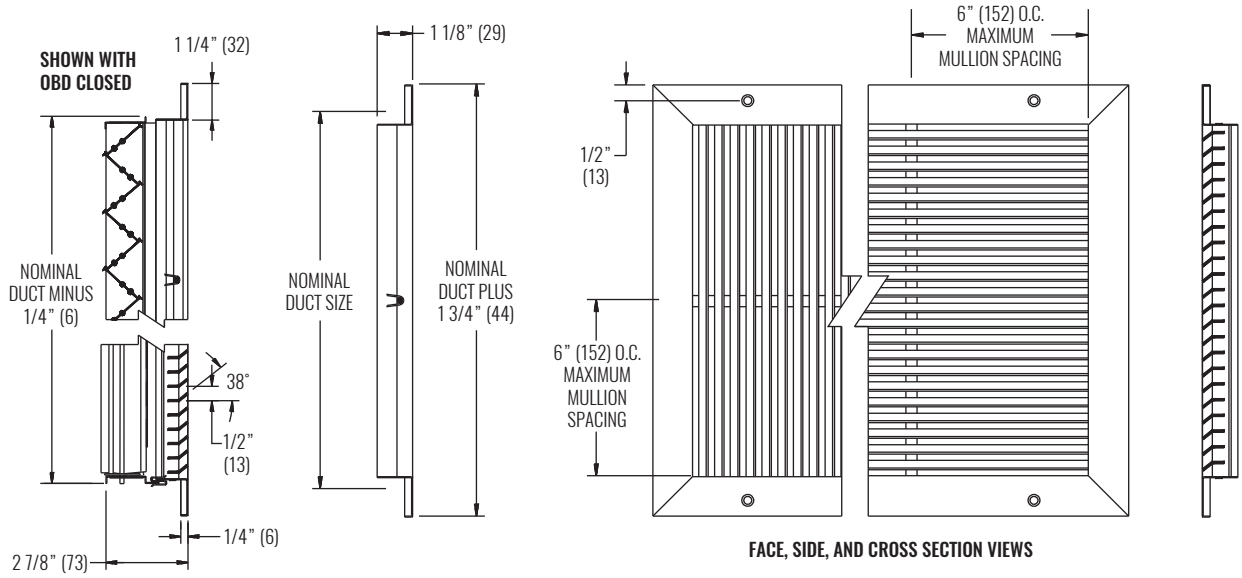
S5480 at 0° Deflection with Damper

S480 / S5480

Return Grille | Heavy Duty

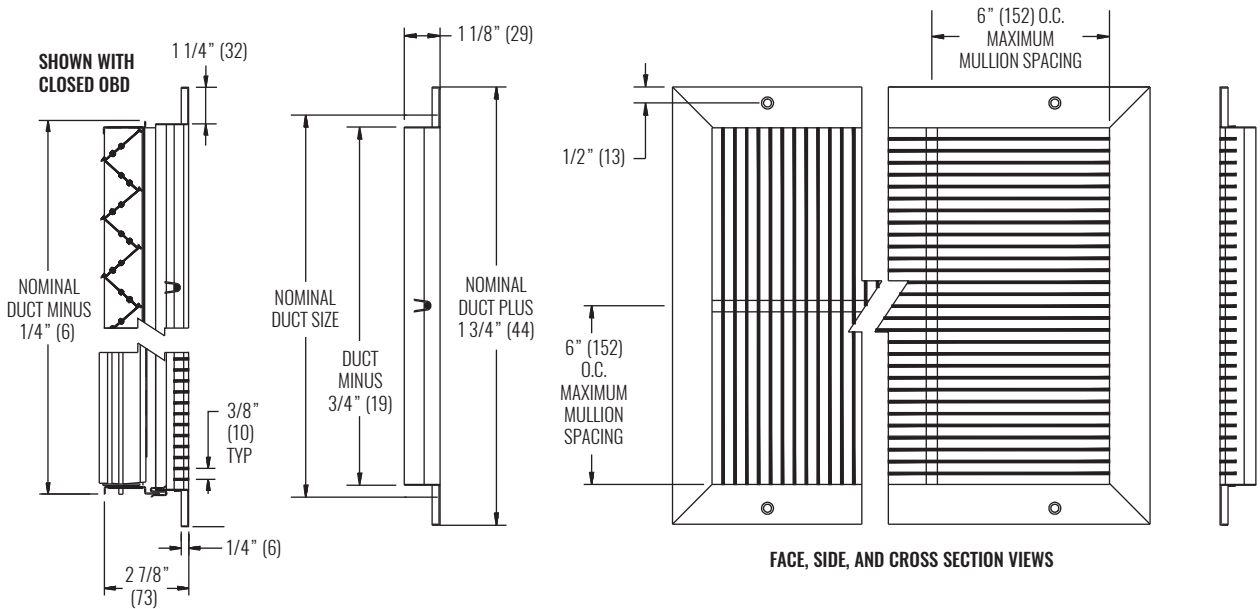


DIMENSIONAL DATA | S480 | 38° DEFLECTION, HORIZONTAL & VERTICAL



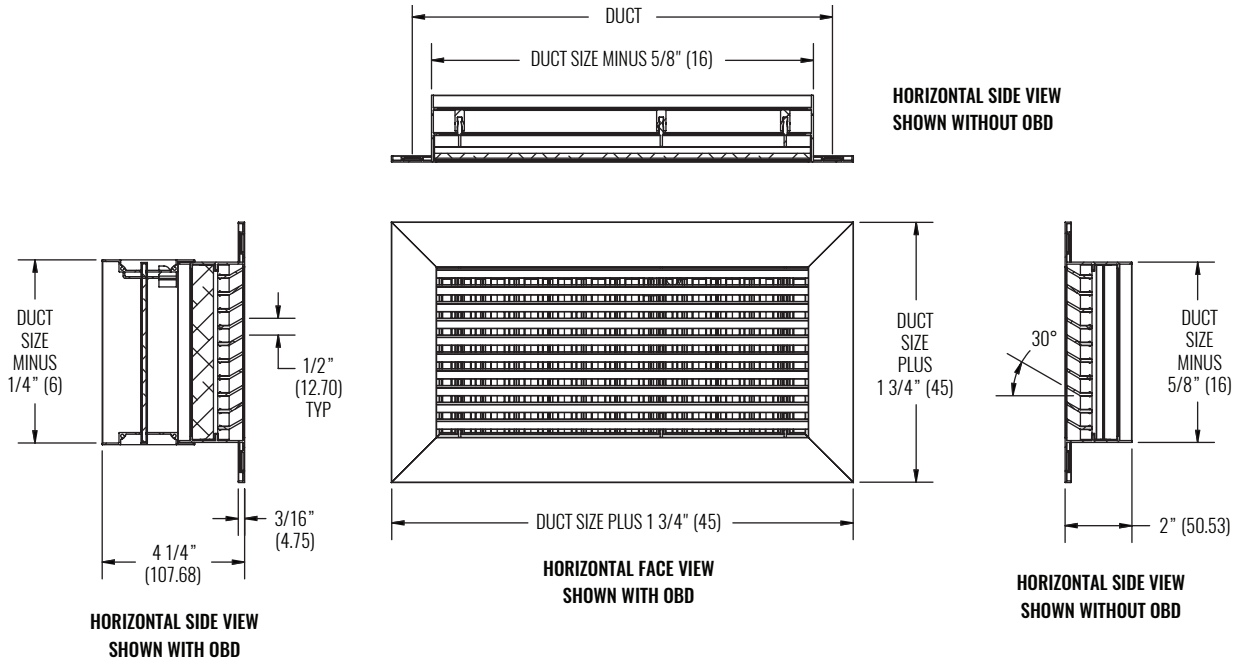
NOTE: Dimensions in parentheses are mm.

DIMENSIONAL DATA | S480 | 0° DEFLECTION, HORIZONTAL & VERTICAL



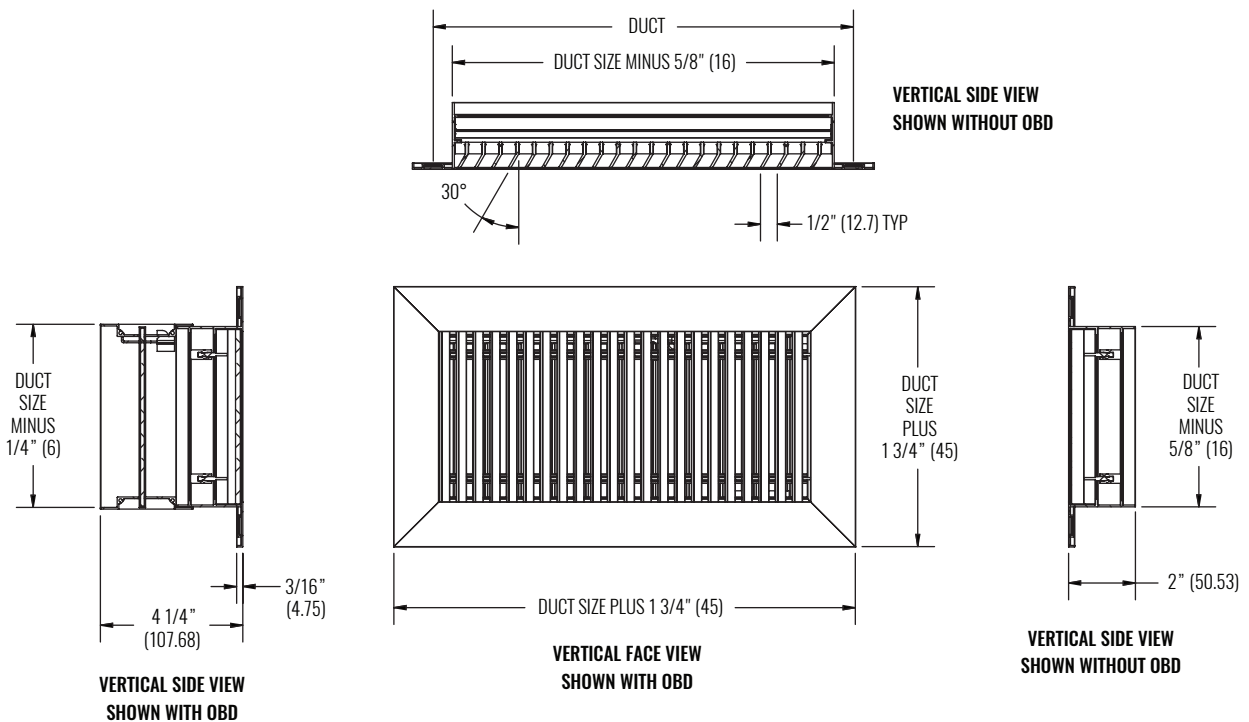
NOTE: Dimensions in parentheses are mm.

DIMENSIONAL DATA | S5480 | 30° DEFLECTION, HORIZONTAL



NOTE: Dimensions in parentheses are mm.

DIMENSIONAL DATA | S5480 | 30° DEFLECTION, VERTICAL



NOTE: Dimensions in parentheses are mm.

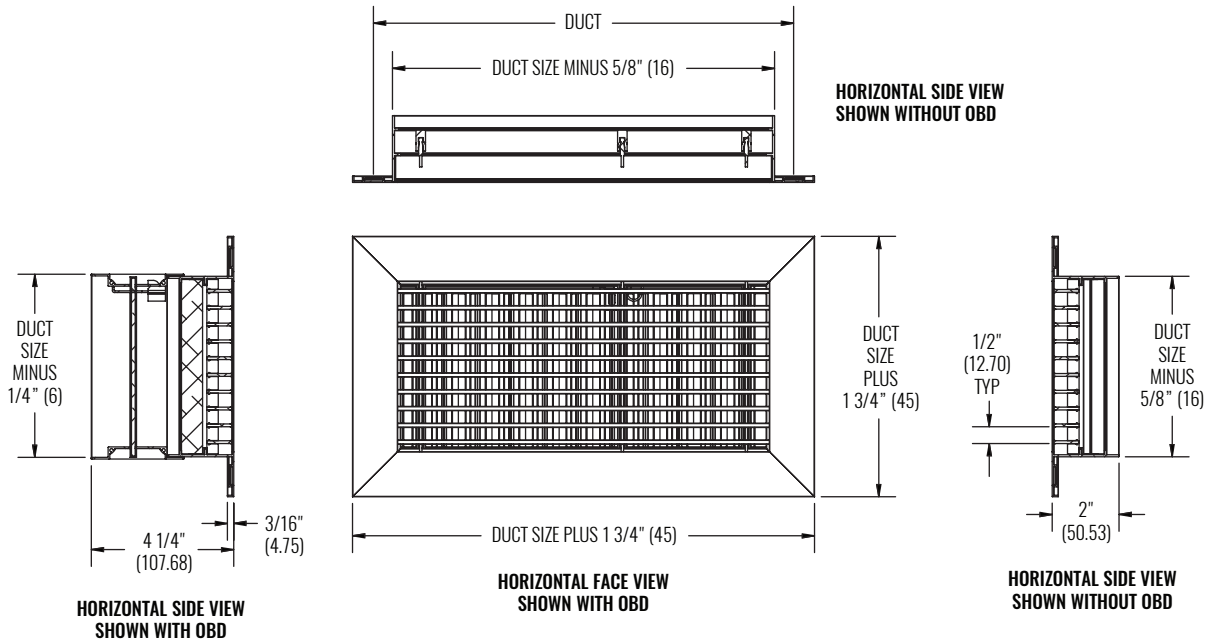
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Return Grille | Heavy Duty



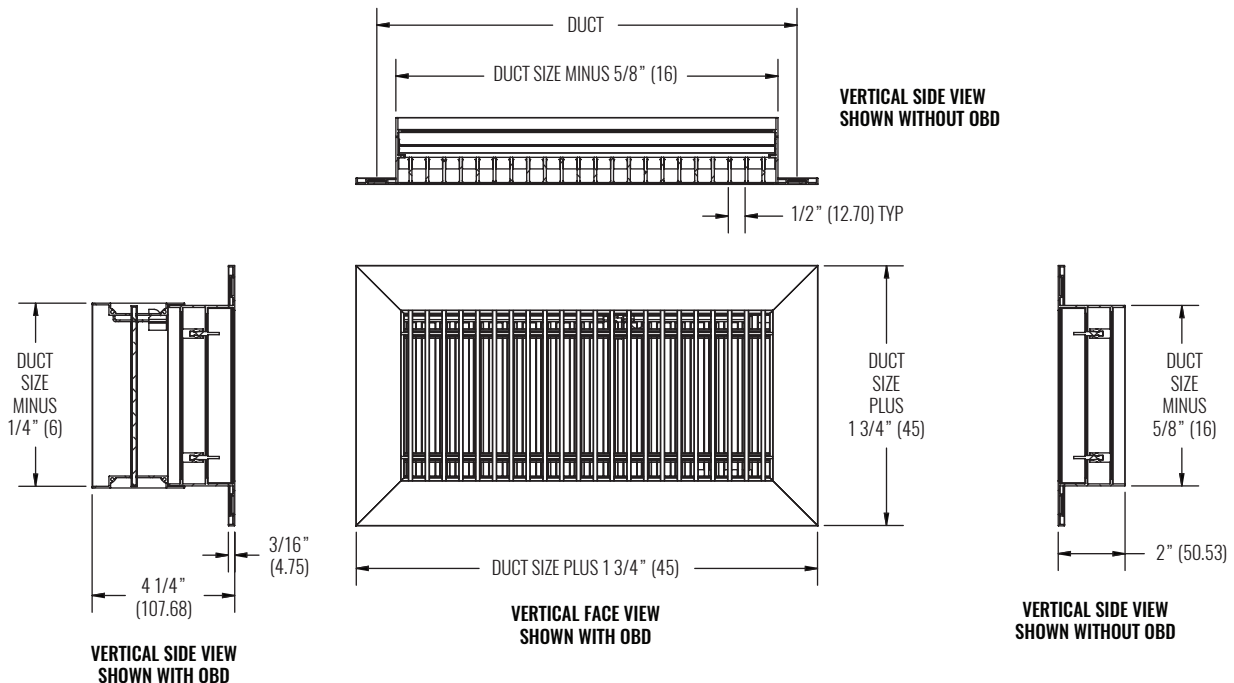
GRILLES | RETURN

DIMENSIONAL DATA | S5480 | 0° DEFLECTION, HORIZONTAL



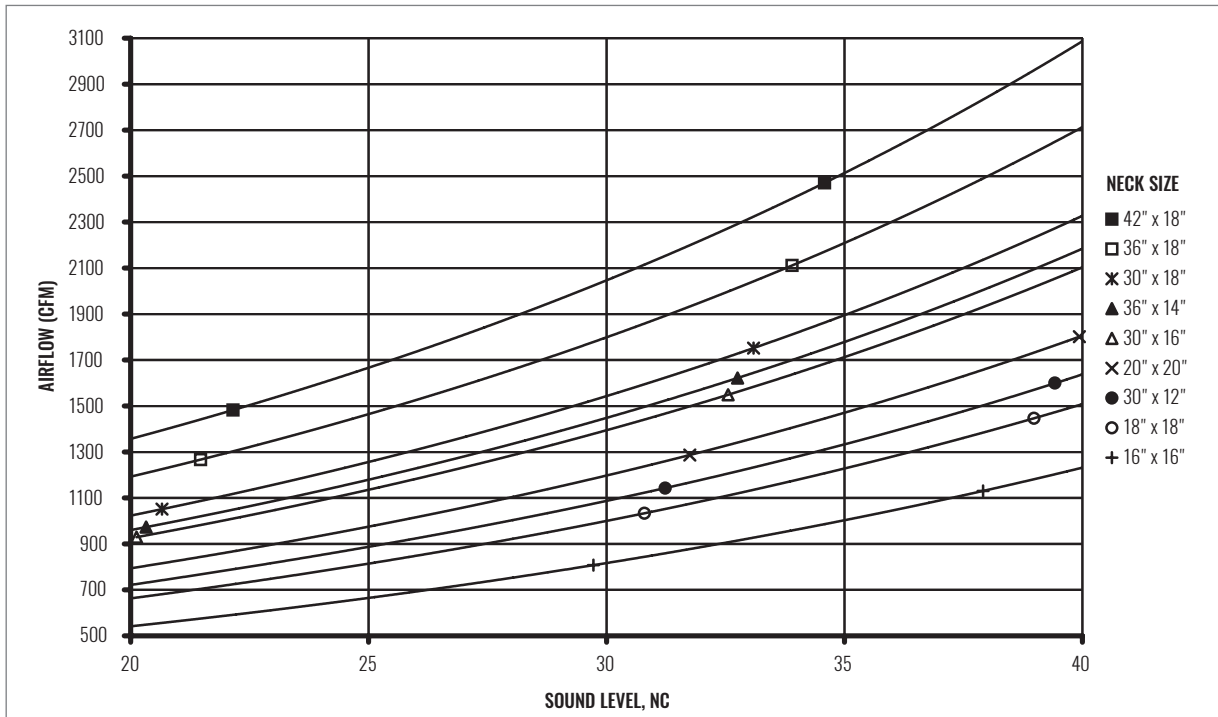
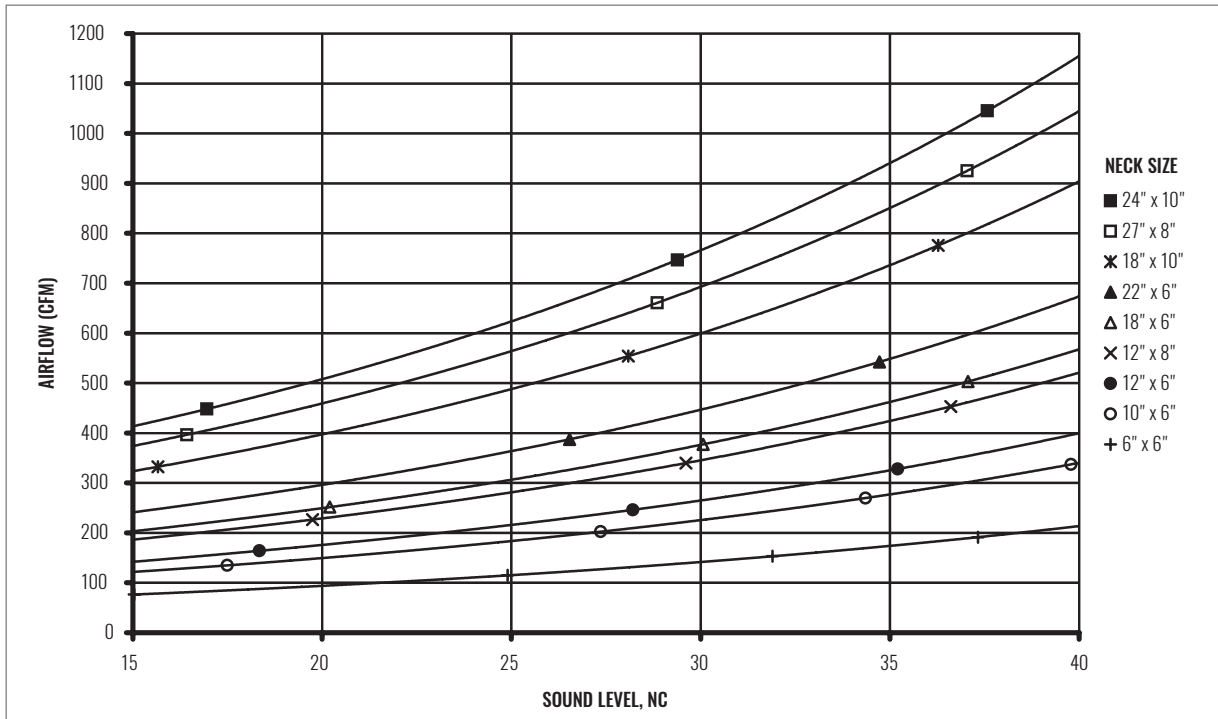
NOTE: Dimensions in parentheses are mm.

DIMENSIONAL DATA | S5480 | 0° DEFLECTION, VERTICAL



NOTE: Dimensions in parentheses are mm.

SOUND CHARTS | S480 | 38° DEFLECTION (NO DAMPER)



GRILLES | RETURN

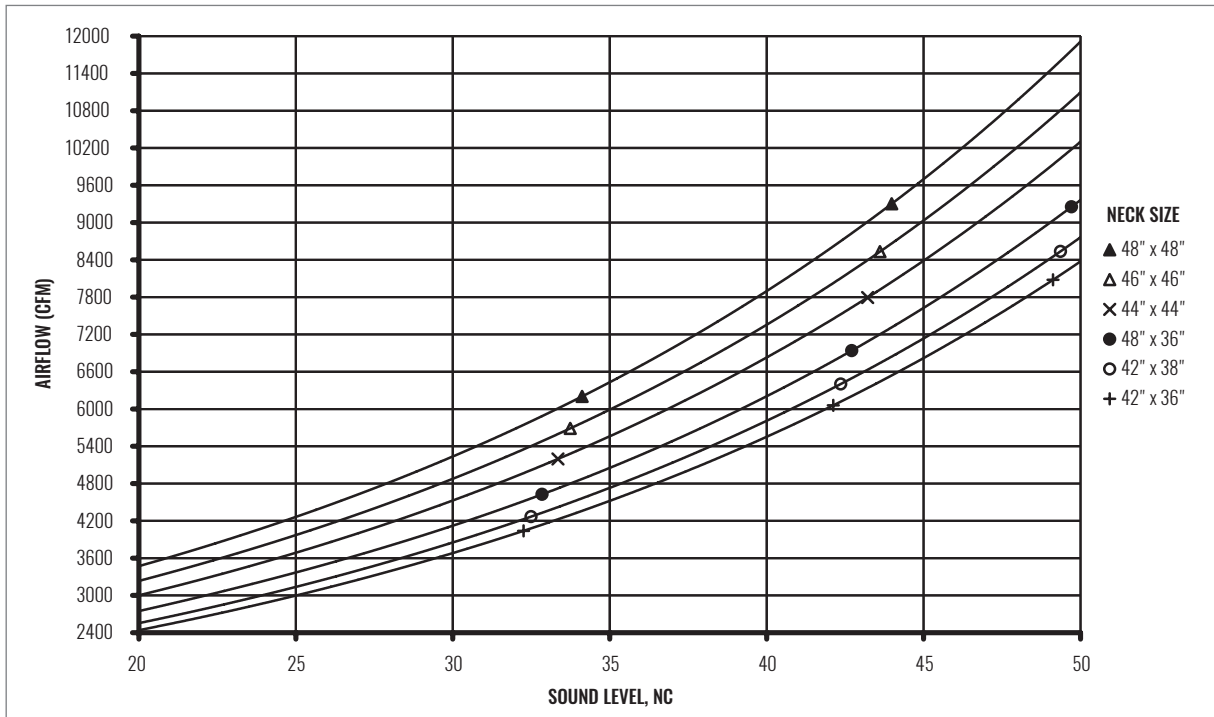
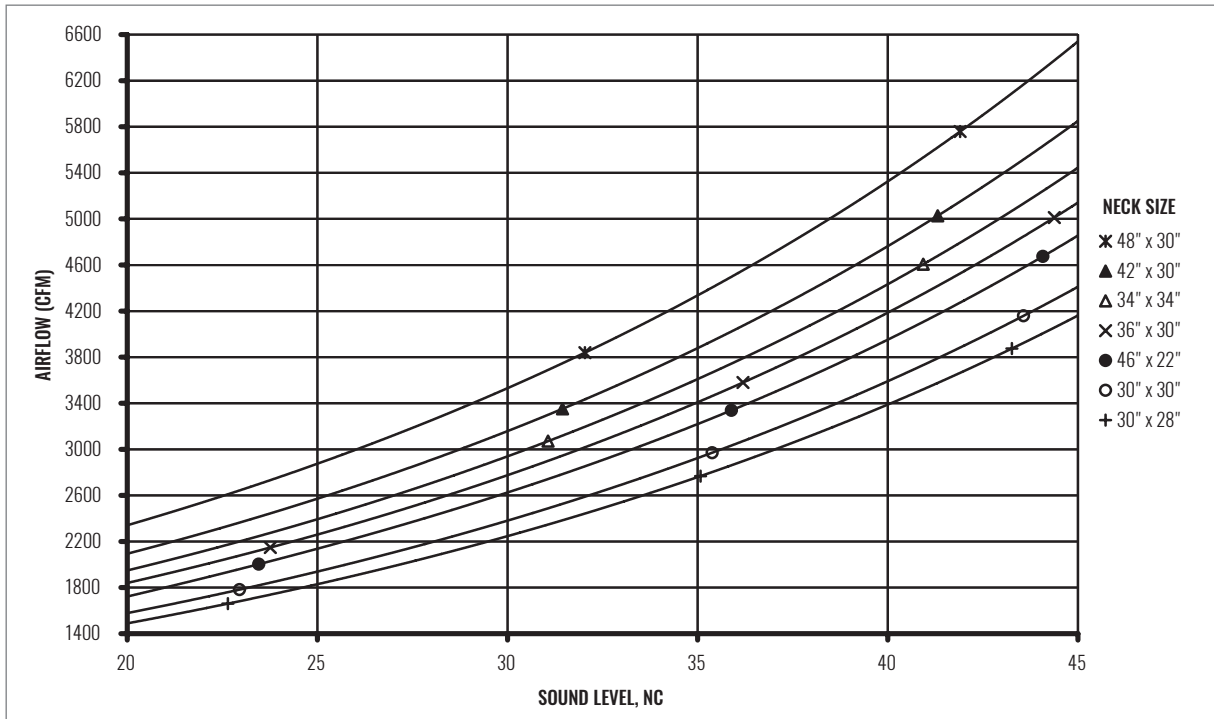
S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

SOUND CHARTS | S480 | 38° DEFLECTION (NO DAMPER)



PERFORMANCE DATA | S480 | 38° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
6" x 6"	0.25	400	77	-0.40	15	152 x 152	0.02	2.03	36	-10.0	29	27	28	20	12	-	
		600	115	-0.90	25			3.05	54	-22.5	40	36	37	32	28	23	
		800	153	-1.60	32			4.06	72	-39.9	47	42	43	41	39	34	
		1000	191	-2.51	37			5.08	90	-62.4	53	47	48	48	47	43	
		1200	230	-3.61	42			6.10	108	-89.9	57	51	52	53	54	50	
10" x 6"	0.42	400	135	-0.40	17	254 x 152	0.04	2.03	64	-10.0	32	30	31	23	15	-	
		600	202	-0.90	27			3.05	95	-22.5	42	39	39	35	30	25	
		800	270	-1.60	34			4.06	127	-39.9	49	45	46	44	41	37	
		1000	337	-2.51	40			5.08	159	-62.4	55	50	51	50	50	46	
		1200	405	-3.61	44			6.10	191	-89.9	60	54	55	56	57	53	
12" x 6"	0.50	400	164	-0.40	18	305 x 152	0.05	2.03	77	-10.0	33	31	31	24	16	-	
		600	246	-0.90	28			3.05	116	-22.5	43	40	40	36	31	26	
		800	328	-1.60	35			4.06	155	-39.9	50	46	47	44	42	38	
		1000	410	-2.51	41			5.08	194	-62.4	56	51	51	51	51	47	
		1200	492	-3.61	45			6.10	232	-89.9	61	55	55	56	58	54	
12" x 8"	0.67	400	227	-0.40	20	305 x 203	0.06	2.03	107	-10.0	34	32	33	25	17	11	
		600	340	-0.90	30			3.05	160	-22.5	44	41	42	37	33	27	
		800	453	-1.60	37			4.06	214	-39.9	52	47	48	46	44	39	
		1000	566	-2.51	42			5.08	267	-62.4	57	52	53	53	52	48	
		1200	680	-3.61	46			6.10	321	-89.9	62	56	57	58	59	55	
18" x 6"	0.75	400	252	-0.40	20	457 x 152	0.07	2.03	119	-10.0	34	32	33	26	17	12	
		600	377	-0.90	30			3.05	178	-22.5	45	41	42	38	33	28	
		800	503	-1.60	37			4.06	237	-39.9	52	48	49	46	44	39	
		1000	629	-2.51	42			5.08	297	-62.4	58	53	53	53	53	48	
		1200	755	-3.61	47			6.10	356	-89.9	63	57	57	58	60	56	
22" x 6"	0.92	300	232	-0.23	14	559 x 152	0.09	1.52	110	-5.6	28	27	28	18	-	-	
		500	387	-0.63	27			2.54	183	-15.6	41	38	39	33	27	22	
		700	542	-1.23	35			3.56	256	-30.6	50	46	47	43	40	35	
		900	697	-2.03	41			4.57	329	-50.5	56	51	52	51	50	45	
		1100	852	-3.03	46			5.59	402	-75.5	61	56	56	57	57	53	
18" x 10"	1.25	300	332	-0.23	16	457 x 254	0.12	1.52	157	-5.6	30	29	30	20	-	-	
		500	554	-0.63	28			2.54	261	-15.6	43	40	41	35	29	23	
		700	776	-1.23	36			3.56	366	-30.6	51	47	48	45	42	37	
		900	997	-2.03	42			4.57	471	-50.5	58	53	54	52	51	47	
		1100	1219	-3.03	47			5.59	575	-75.5	63	58	58	58	59	55	
27" x 8"	1.50	300	396	-0.23	16	686 x 203	0.14	1.52	187	-5.6	30	29	30	20	-	-	
		500	661	-0.63	29			2.54	312	-15.6	43	41	42	36	29	24	
		700	925	-1.23	37			3.56	437	-30.6	52	48	49	46	42	37	
		900	1189	-2.03	43			4.57	561	-50.5	58	54	54	53	52	48	
		1100	1454	-3.03	48			5.59	686	-75.5	64	58	59	59	60	56	
24" x 10"	1.67	300	448	-0.23	17	610 x 254	0.15	1.52	211	-5.6	31	30	31	21	-	-	
		500	747	-0.63	29			2.54	352	-15.6	44	41	42	36	30	25	
		700	1045	-1.23	38			3.56	493	-30.6	53	49	50	46	43	38	
		900	1344	-2.03	44			4.57	634	-50.5	59	54	55	54	53	48	
		1100	1643	-3.03	49			5.59	775	-75.5	64	59	59	60	60	56	
16" x 16"	1.78	300	485	-0.23	17	406 x 406	0.17	1.52	229	-5.6	31	30	31	21	11	-	
		500	808	-0.63	30			2.54	381	-15.6	44	42	43	37	30	25	
		700	1131	-1.23	38			3.56	534	-30.6	53	49	50	47	43	38	
		900	1454	-2.03	44			4.57	686	-50.5	59	55	55	54	53	48	
		1100	1777	-3.03	49			5.59	838	-75.5	64	59	60	60	61	57	
18" x 18"	2.25	300	620	-0.23	18	457 x 457	0.21	1.52	293	-5.6	32	31	32	23	12	-	
		500	1033	-0.63	31			2.54	488	-15.6	45	43	44	38	31	26	
		700	1446	-1.23	39			3.56	683	-30.6	54	50	51	48	44	40	
		900	1860	-2.03	45			4.57	878	-50.5	60	56	57	55	54	50	
		1100	2273	-3.03	50			5.59	1073	-75.5	66	60	61	61	62	58	

NOTE: See notes on page J1-61.

S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

PERFORMANCE DATA | S480 | 38° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft ²	FPM	CFM	"WG	mm		m ²	m/s	L/s	Pa	2	3	4	5	6	7		
30" x 12"	2.50	300	686	-.023	19	762 x 305	0.23	1.52	324	-5.6	33	32	33	23	12	-		
		500	1143	-.063	31			2.54	539	-15.6	46	43	44	38	32	26		
		700	1600	-.123	39			3.56	755	-30.6	54	51	51	48	45	40		
		900	2057	-.203	46			4.57	971	-50.5	61	56	57	56	54	50		
		1100	2514	-.303	50			5.59	1186	-75.5	66	61	61	62	62	58		
20" x 20"	2.78	300	772	-.023	19	508 x 508	0.26	1.52	364	-5.6	33	32	33	24	13	-		
		500	1287	-.063	32			2.54	607	-15.6	46	44	45	39	32	27		
		700	1801	-.123	40			3.56	850	-30.6	55	51	52	49	45	41		
		900	2316	-.203	46			4.57	1093	-50.5	61	57	58	56	55	51		
		1100	2831	-.303	51			5.59	1336	-75.5	66	61	62	62	63	59		
30" x 16"	3.33	300	929	-.023	20	762 x 406	0.31	1.52	439	-5.6	34	33	34	24	14	-		
		500	1549	-.063	33			2.54	731	-15.6	47	45	45	40	33	28		
		700	2168	-.123	41			3.56	1023	-30.6	56	52	53	50	46	41		
		900	2788	-.203	47			4.57	1316	-50.5	62	58	58	57	56	51		
		1100	3407	-.303	52			5.59	1608	-75.5	67	62	63	63	64	60		
36" x 14"	3.50	300	973	-.023	20	914 x 356	0.33	1.52	459	-5.6	34	34	35	25	14	-		
		500	1622	-.063	33			2.54	765	-15.6	47	45	46	40	33	28		
		700	2270	-.123	41			3.56	1072	-30.6	56	52	53	50	46	42		
		900	2919	-.203	47			4.57	1378	-50.5	62	58	59	57	56	52		
		1100	3568	-.303	52			5.59	1684	-75.5	68	62	63	63	64	60		
30" x 18"	3.75	100	350	-.003	-	762 x 457	0.35	0.51	165	-0.6	-	-	11	-	-	-		
		300	1051	-.023	21			1.52	496	-5.6	35	34	35	25	14	-		
		500	1752	-.063	33			2.54	827	-15.6	48	45	46	40	34	28		
		700	2453	-.123	41			3.56	1158	-30.6	56	53	53	50	47	42		
		900	3154	-.203	47			4.57	1488	-50.5	63	58	59	58	56	52		
36" x 18"	4.50	100	422	-.003	-	914 x 457	0.42	0.51	199	-0.6	-	-	12	-	-	-		
		300	1267	-.023	21			1.52	598	-5.6	35	35	36	26	15	-		
		500	2111	-.063	34			2.54	996	-15.6	49	46	47	41	35	29		
		700	2956	-.123	42			3.56	1395	-30.6	57	54	54	51	48	43		
		900	3800	-.203	48			4.57	1794	-50.5	64	59	60	59	57	53		
42" x 18"	5.25	100	494	-.003	-	1067 x 457	0.49	0.51	233	-0.6	-	11	12	-	-	-		
		300	1482	-.023	22			1.52	700	-5.6	36	35	36	26	16	-		
		500	2471	-.063	35			2.54	1166	-15.6	49	47	48	42	35	30		
		700	3459	-.123	43			3.56	1632	-30.6	58	54	55	52	48	43		
		900	4447	-.203	49			4.57	2099	-50.5	64	60	60	59	58	54		
30" x 28"	5.83	100	554	-.003	-	762 x 711	0.54	0.51	261	-0.6	-	12	13	-	-	-		
		300	1661	-.023	23			1.52	784	-5.6	37	36	37	27	16	-		
		500	2768	-.063	35			2.54	1306	-15.6	50	47	48	42	36	30		
		700	3875	-.123	43			3.56	1829	-30.6	58	55	55	52	49	44		
		900	4982	-.203	49			4.57	2351	-50.5	65	60	61	60	58	54		
30" x 30"	6.25	100	594	-.003	-	762 x 762	0.58	0.51	280	-0.6	-	12	13	-	-	-		
		300	1782	-.023	23			1.52	841	-5.6	37	36	37	27	17	-		
		500	2971	-.063	35			2.54	1402	-15.6	50	48	48	43	36	31		
		700	4159	-.123	44			3.56	1963	-30.6	59	55	56	53	49	44		
		900	5347	-.203	50			4.57	2524	-50.5	65	61	61	60	59	54		
46" x 22"	7.03	100	668	-.003	-	1168 x 559	0.65	0.51	315	-0.6	-	12	14	-	-	-		
		300	2003	-.023	23			1.52	945	-5.6	37	37	38	28	17	11		
		500	3339	-.063	36			2.54	1576	-15.6	51	48	49	43	37	31		
		700	4674	-.123	44			3.56	2206	-30.6	59	56	56	53	50	45		
		900	6010	-.203	50			4.57	2836	-50.5	66	61	62	61	59	55		
36" x 30"	7.50	100	716	-.003	-	914 x 762	0.70	0.51	338	-0.6	-	13	14	-	-	-		
		300	2148	-.023	24			1.52	1014	-5.6	38	37	38	28	17	11		
		500	3580	-.063	36			2.54	1690	-15.6	51	48	49	43	37	32		
		700	5012	-.123	44			3.56	2365	-30.6	59	56	57	53	50	45		
		900	6444	-.203	50			4.57	3041	-50.5	66	62	62	61	60	55		

NOTE: See notes on page J1-61.

PERFORMANCE DATA | S480 | 38° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
34" x 34"	8.03	100	768	-0.03	-	864 x 864	0.75	0.51	362	-0.6	-	13	14	-	-	-	
		200	1536	-0.10	14			1.02	725	-2.5	28	28	30	16	-	-	
		400	3071	-0.40	31			2.03	1449	-10.0	45	44	45	37	29	23	
		600	4607	-0.90	41			3.05	2174	-22.5	56	53	54	49	44	39	
		800	6142	-1.60	48			4.06	2899	-39.9	63	59	60	58	55	51	
42" x 30"	8.75	100	838	-0.03	-	1067 x 762	0.81	0.51	395	-0.6	-	13	15	-	-	-	
		200	1676	-0.10	15			1.02	791	-2.5	28	29	30	17	-	-	
		400	3352	-0.40	31			2.03	1582	-10.0	46	44	45	37	29	23	
		600	5027	-0.90	41			3.05	2373	-22.5	56	53	54	50	45	40	
		800	6703	-1.60	48			4.06	3164	-39.9	64	60	60	58	56	51	
48" x 30"	10.00	100	960	-0.03	-	1219 x 762	0.93	0.51	453	-0.6	11	14	15	-	-	-	
		200	1920	-0.10	15			1.02	906	-2.5	29	29	31	17	-	-	
		400	3839	-0.40	32			2.03	1812	-10.0	46	45	46	38	30	24	
		600	5759	-0.90	42			3.05	2718	-22.5	57	54	55	50	45	40	
		800	7678	-1.60	49			4.06	3624	-39.9	64	60	61	59	56	52	
42" x 36"	10.50	100	1010	-0.03	-	1067 x 914	0.98	0.51	477	-0.6	11	14	16	-	-	-	
		200	2020	-0.10	15			1.02	953	-2.5	29	30	31	18	-	-	
		400	4039	-0.40	32			2.03	1906	-10.0	47	45	46	38	30	24	
		600	6059	-0.90	42			3.05	2859	-22.5	57	54	55	50	46	41	
		800	8078	-1.60	49			4.06	3812	-39.9	64	61	61	59	57	52	
42" x 38"	11.08	100	1067	-0.03	-	1067 x 965	1.03	0.51	504	-0.6	11	15	16	-	-	-	
		200	2134	-0.10	16			1.02	1007	-2.5	29	30	31	18	-	-	
		400	4268	-0.40	32			2.03	2014	-10.0	47	45	46	39	30	24	
		600	6402	-0.90	42			3.05	3022	-22.5	57	54	55	51	46	41	
		800	8536	-1.60	49			4.06	4029	-39.9	65	61	61	59	57	52	
48" x 36"	12.00	100	1157	-0.03	-	1219 x 914	1.11	0.51	546	-0.6	12	15	16	-	-	-	
		200	2313	-0.10	16			1.02	1092	-2.5	30	30	31	18	-	-	
		400	4627	-0.40	33			2.03	2183	-10.0	47	46	47	39	31	25	
		600	6940	-0.90	43			3.05	3275	-22.5	58	55	55	51	46	41	
		800	9253	-1.60	50			4.06	4367	-39.9	65	61	62	60	57	53	
44" x 44"	13.44	100	1299	-0.03	-	1118 x 1118	1.25	0.51	613	-0.6	12	15	17	-	-	-	
		200	2598	-0.10	16			1.02	1226	-2.5	30	31	32	19	-	-	
		400	5196	-0.40	33			2.03	2452	-10.0	48	46	47	39	31	25	
		600	7794	-0.90	43			3.05	3678	-22.5	58	55	56	52	47	42	
		800	10392	-1.60	50			4.06	4904	-39.9	65	62	62	60	58	53	
46" x 46"	14.69	100	1422	-0.03	-	1168 x 1168	1.37	0.51	671	-0.6	-	12	13	-	-	-	
		200	2844	-0.10	17			1.02	1342	-2.5	26	27	28	15	-	-	
		400	5688	-0.40	34			2.03	2684	-10.0	44	42	43	36	27	21	
		600	8532	-0.90	44			3.05	4026	-22.5	54	51	52	48	43	38	
		800	11375	-1.60	51			4.06	5369	-39.9	62	58	58	56	54	49	
48" x 48"	16.00	100	1550	-0.03	-	1219 x 1219	1.49	0.51	732	-0.6	-	12	13	-	-	-	
		200	3101	-0.10	17			1.02	1463	-2.5	27	27	28	15	-	-	
		400	6202	-0.40	34			2.03	2927	-10.0	44	43	44	36	28	22	
		600	9302	-0.90	44			3.05	4390	-22.5	55	52	52	48	43	38	
		800	12403	-1.60	51			4.06	5854	-39.9	62	58	59	57	54	50	

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.

GRILLES | RETURN

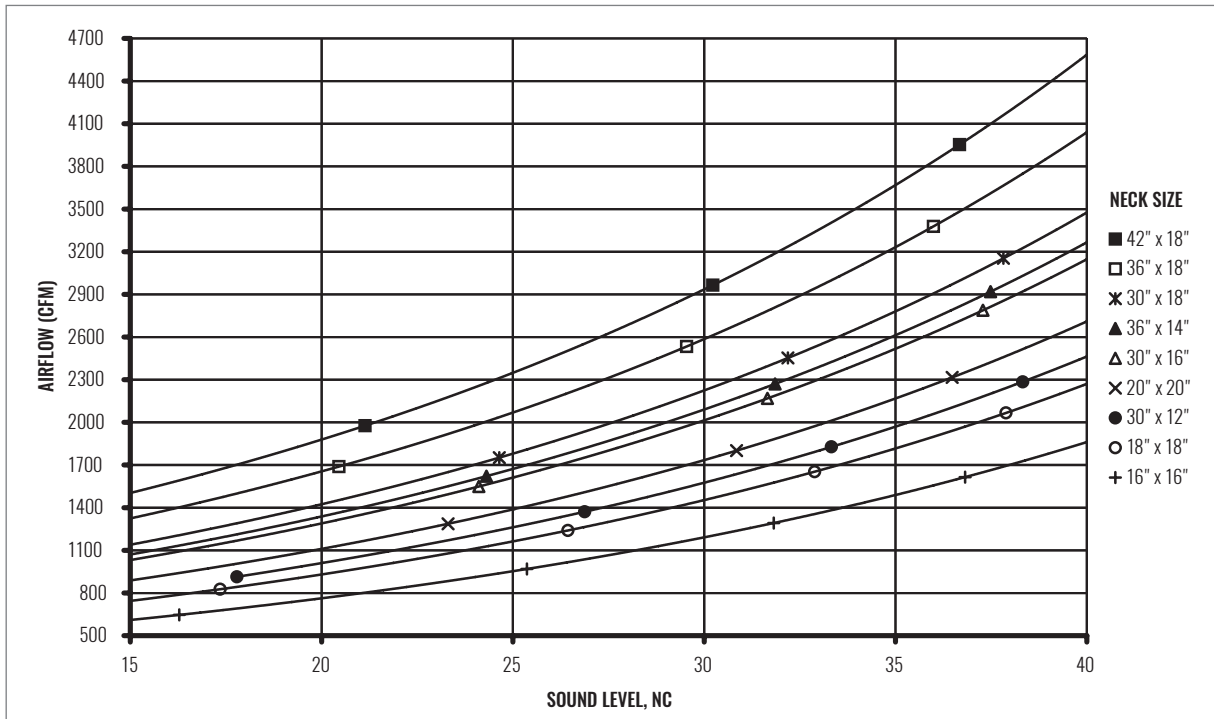
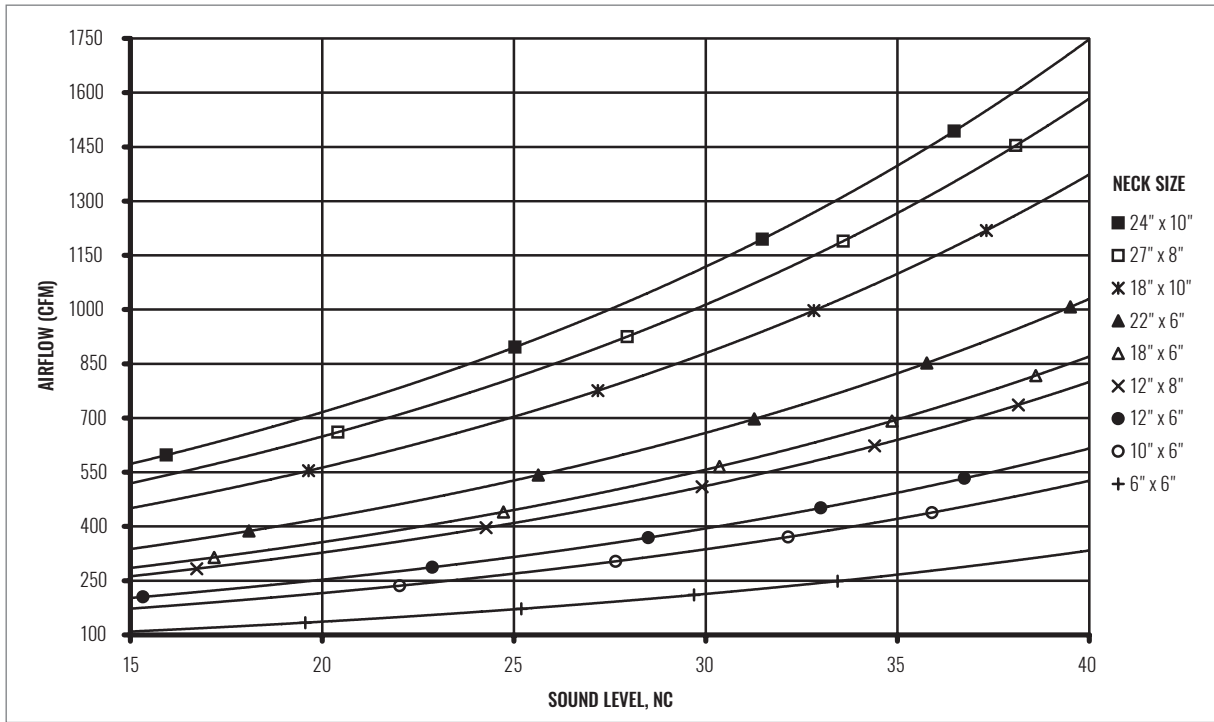
S480 / S5480

Return Grille | Heavy Duty

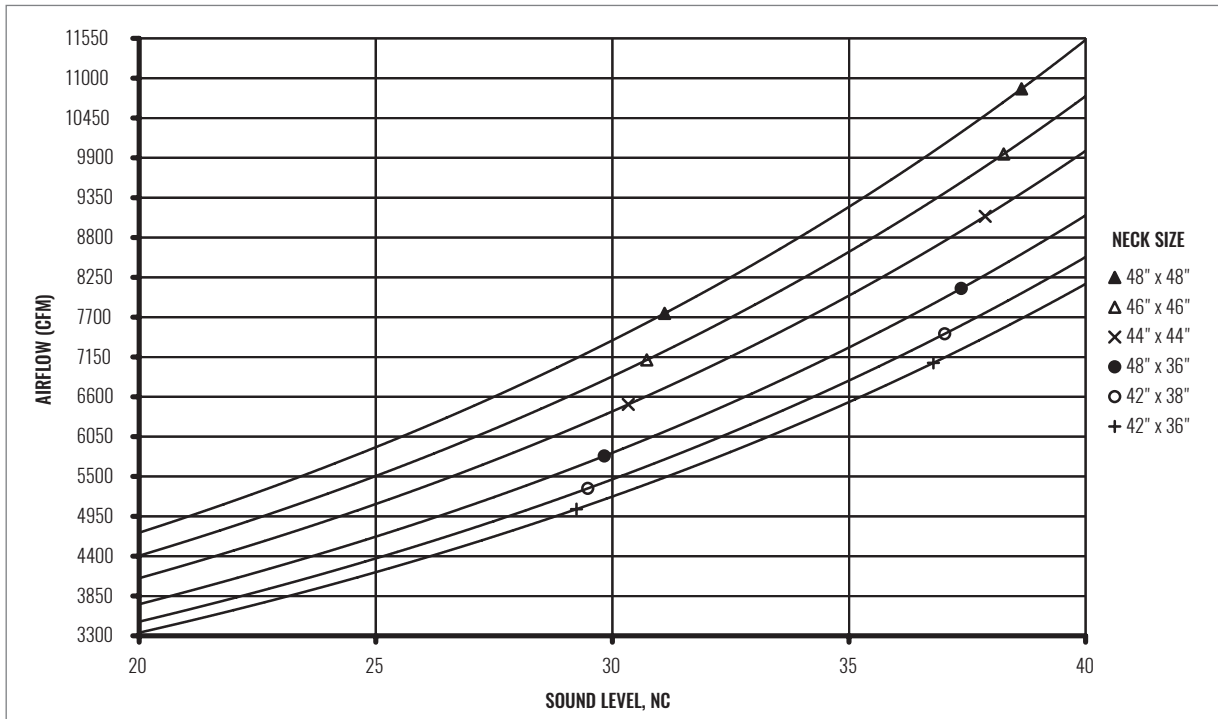
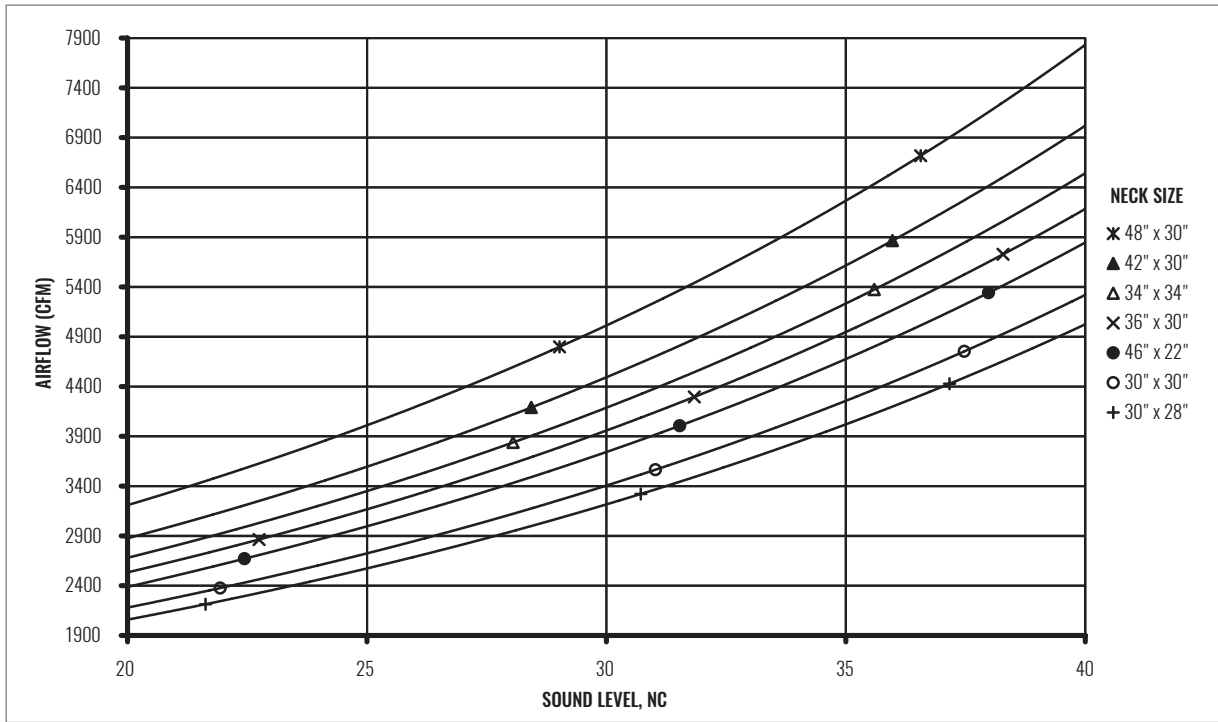


GRILLES | RETURN

SOUND CHARTS | S480 | 0° DEFLECTION (NO DAMPER)



SOUND CHARTS | S480 | 0° DEFLECTION (NO DAMPER)



GRILLES | RETURN

S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

PERFORMANCE DATA | S480 | 0° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft ²	FPM	CFM	"WG	mm		m ²	m/s	L/s	Pa	2	3	4	5	6	7		
6" x 6"	0.25	500	96	-0.35	12	152 x 152	0.02	2.54	45	-8.7	29	26	27	21	15	-		
		700	134	-0.69	20			3.56	63	-17.1	35	31	32	29	25	21		
		900	172	-1.14	25			4.57	81	-28.3	40	36	36	35	34	29		
		1100	211	-1.70	30			5.59	99	-42.3	44	39	39	40	40	36		
		1300	249	-2.37	33			6.60	117	-59.0	47	41	42	44	45	42		
10" x 6"	0.42	500	169	-0.35	14	254 x 152	0.04	2.54	80	-8.7	31	28	29	23	17	12		
		700	236	-0.69	22			3.56	111	-17.1	38	34	35	31	28	23		
		900	304	-1.14	28			4.57	143	-28.3	43	38	39	37	36	32		
		1100	371	-1.70	32			5.59	175	-42.3	46	41	42	42	43	39		
		1300	438	-2.37	36			6.60	207	-59.0	50	44	44	46	48	44		
12" x 6"	0.50	500	205	-0.35	15	305 x 152	0.05	2.54	97	-8.7	32	29	30	24	18	13		
		700	287	-0.69	23			3.56	136	-17.1	38	35	35	32	29	24		
		900	369	-1.14	29			4.57	174	-28.3	43	39	39	38	37	33		
		1100	451	-1.70	33			5.59	213	-42.3	47	42	43	43	43	39		
		1300	533	-2.37	37			6.60	252	-59.0	51	45	45	47	49	45		
12" x 8"	0.67	500	283	-0.35	17	305 x 203	0.06	2.54	134	-8.7	33	31	32	26	19	14		
		700	396	-0.69	24			3.56	187	-17.1	40	36	37	34	30	25		
		900	510	-1.14	30			4.57	241	-28.3	45	40	41	40	38	34		
		1100	623	-1.70	34			5.59	294	-42.3	49	44	44	44	45	41		
		1300	736	-2.37	38			6.60	348	-59.0	52	46	47	48	50	47		
18" x 6"	0.75	500	314	-0.35	17	457 x 152	0.07	2.54	148	-8.7	34	31	32	26	20	14		
		700	440	-0.69	25			3.56	208	-17.1	40	37	37	34	31	26		
		900	566	-1.14	30			4.57	267	-28.3	45	41	41	40	39	34		
		1100	692	-1.70	35			5.59	326	-42.3	49	44	45	45	45	41		
		1300	818	-2.37	39			6.60	386	-59.0	52	47	47	49	51	47		
22" x 6"	0.92	500	387	-0.35	18	559 x 152	0.09	2.54	183	-8.7	35	32	33	27	21	15		
		700	542	-0.69	26			3.56	256	-17.1	41	38	38	35	32	27		
		900	697	-1.14	31			4.57	329	-28.3	46	42	42	41	40	35		
		1100	852	-1.70	36			5.59	402	-42.3	50	45	45	46	46	42		
		1300	1007	-2.37	40			6.60	475	-59.0	53	48	48	50	52	48		
18" x 10"	1.25	500	554	-0.35	20	457 x 254	0.12	2.54	261	-8.7	36	34	35	29	22	17		
		700	776	-0.69	27			3.56	366	-17.1	43	39	40	37	33	28		
		900	997	-1.14	33			4.57	471	-28.3	48	43	44	43	41	37		
		1100	1219	-1.70	37			5.59	575	-42.3	52	47	47	47	48	44		
		1300	1440	-2.37	41			6.60	680	-59.0	55	49	50	51	53	50		
27" x 8"	1.50	500	661	-0.35	20	686 x 203	0.14	2.54	312	-8.7	37	35	35	29	23	18		
		700	925	-0.69	28			3.56	437	-17.1	44	40	41	37	34	29		
		900	1189	-1.14	34			4.57	561	-28.3	49	44	45	43	42	38		
		1100	1454	-1.70	38			5.59	686	-42.3	52	47	48	48	49	45		
		1300	1718	-2.37	42			6.60	811	-59.0	56	50	50	52	54	50		
24" x 10"	1.67	400	597	-0.22	16	610 x 254	0.15	2.03	282	-5.6	33	31	32	25	16	11		
		600	896	-0.51	25			3.05	423	-12.6	41	38	39	34	30	25		
		800	1195	-0.90	31			4.06	564	-22.4	47	43	43	41	39	34		
		1000	1493	-1.40	36			5.08	705	-34.9	51	46	47	46	46	42		
		1200	1792	-2.02	41			6.10	846	-50.3	55	49	50	51	52	48		
16" x 16"	1.78	400	646	-0.22	16	406 x 406	0.17	2.03	305	-5.6	34	32	33	25	17	11		
		600	969	-0.51	25			3.05	457	-12.6	42	38	39	35	30	25		
		800	1292	-0.90	32			4.06	610	-22.4	47	43	44	42	39	35		
		1000	1615	-1.40	37			5.08	762	-34.9	52	47	47	47	46	42		
		1200	1938	-2.02	41			6.10	915	-50.3	55	50	50	51	52	48		
18" x 18"	2.25	400	827	-0.22	17	457 x 457	0.21	2.03	390	-5.6	35	33	34	26	18	12		
		600	1240	-0.51	26			3.05	585	-12.6	43	39	40	36	31	26		
		800	1653	-0.90	33			4.06	780	-22.4	48	44	45	43	40	36		
		1000	2066	-1.40	38			5.08	975	-34.9	53	48	48	48	48	43		
		1200	2480	-2.02	42			6.10	1170	-50.3	56	51	51	52	53	50		

NOTE: See notes on page J1-66.

PERFORMANCE DATA | S480 | 0° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
30" x 12"	2.50	400	914	-0.22	18	762 x 305	0.23	2.03	431	-5.6	35	33	34	27	18	13	
		600	1371	-0.51	27			3.05	647	-12.6	43	40	41	36	31	26	
		800	1828	-0.90	33			4.06	863	-22.4	49	45	45	43	41	36	
		1000	2285	-1.40	38			5.08	1078	-34.9	53	48	49	48	48	44	
		1200	2742	-2.02	42			6.10	1294	-50.3	57	51	52	53	54	50	
20" x 20"	2.78	300	772	-0.13	12	508 x 508	0.26	1.52	364	-3.1	30	29	30	20	-	-	
		500	1287	-0.35	23			2.54	607	-8.7	40	37	38	32	26	21	
		700	1801	-0.69	31			3.56	850	-17.1	47	43	44	40	37	32	
		900	2316	-1.14	36			4.57	1093	-28.3	52	47	48	46	45	41	
		1100	2831	-1.70	41			5.59	1336	-42.3	55	50	51	51	52	48	
30" x 16"	3.33	300	929	-0.13	13	762 x 406	0.31	1.52	439	-3.1	31	30	31	21	-	-	
		500	1549	-0.35	24			2.54	731	-8.7	41	38	39	33	27	22	
		700	2168	-0.69	32			3.56	1023	-17.1	47	44	44	41	38	33	
		900	2788	-1.14	37			4.57	1316	-28.3	52	48	48	47	46	42	
		1100	3407	-1.70	42			5.59	1608	-42.3	56	51	52	52	52	48	
36" x 14"	3.50	300	973	-0.13	13	914 x 356	0.33	1.52	459	-3.1	31	30	31	21	11	-	
		500	1622	-0.35	24			2.54	765	-8.7	41	39	39	33	27	22	
		700	2270	-0.69	32			3.56	1072	-17.1	48	44	45	41	38	33	
		900	2919	-1.14	37			4.57	1378	-28.3	53	48	49	47	46	42	
		1100	3568	-1.70	42			5.59	1684	-42.3	56	51	52	52	53	49	
30" x 18"	3.75	300	1051	-0.13	13	762 x 457	0.35	1.52	496	-3.1	31	31	32	22	11	-	
		500	1752	-0.35	25			2.54	827	-8.7	41	39	40	34	27	22	
		700	2453	-0.69	32			3.56	1158	-17.1	48	44	45	42	38	34	
		900	3154	-1.14	38			4.57	1488	-28.3	53	48	49	48	46	42	
		1100	3854	-1.70	42			5.59	1819	-42.3	57	52	52	52	53	49	
36" x 18"	4.50	200	845	-0.06	-	914 x 457	0.42	1.02	399	-1.4	24	25	26	13	-	-	
		400	1689	-0.22	20			2.03	797	-5.6	38	36	37	29	21	15	
		600	2534	-0.51	30			3.05	1196	-12.6	46	43	43	39	34	29	
		800	3378	-0.90	36			4.06	1594	-22.4	51	47	48	46	43	39	
		1000	4223	-1.40	41			5.08	1993	-34.9	56	51	51	51	51	47	
42" x 18"	5.25	200	988	-0.06	-	1067 x 457	0.49	1.02	466	-1.4	25	26	27	14	-	-	
		400	1977	-0.22	21			2.03	933	-5.6	39	37	38	30	22	16	
		600	2965	-0.51	30			3.05	1399	-12.6	46	43	44	40	35	30	
		800	3953	-0.90	37			4.06	1866	-22.4	52	48	49	46	44	40	
		1000	4941	-1.40	42			5.08	2332	-34.9	56	52	52	52	51	47	
30" x 28"	5.83	200	1107	-0.06	-	762 x 711	0.54	1.02	522	-1.4	26	26	27	14	-	-	
		400	2214	-0.22	22			2.03	1045	-5.6	39	37	38	30	22	17	
		600	3321	-0.51	31			3.05	1567	-12.6	47	44	45	40	35	30	
		800	4428	-0.90	37			4.06	2090	-22.4	53	49	49	47	45	40	
		1000	5535	-1.40	42			5.08	2612	-34.9	57	52	53	52	52	48	
30" x 30"	6.25	200	1188	-0.06	-	762 x 762	0.58	1.02	561	-1.4	26	26	27	14	-	-	
		400	2377	-0.22	22			2.03	1122	-5.6	39	38	38	31	23	17	
		600	3565	-0.51	31			3.05	1682	-12.6	47	44	45	40	36	31	
		800	4753	-0.90	37			4.06	2243	-22.4	53	49	49	47	45	40	
		1000	5941	-1.40	42			5.08	2804	-34.9	57	52	53	53	52	48	
46" x 22"	7.03	200	1336	-0.06	-	1168 x 559	0.65	1.02	630	-1.4	26	27	28	15	-	-	
		400	2671	-0.22	22			2.03	1261	-5.6	40	38	39	31	23	17	
		600	4007	-0.51	32			3.05	1891	-12.6	48	45	45	41	36	31	
		800	5342	-0.90	38			4.06	2521	-22.4	53	49	50	48	46	41	
		1000	6678	-1.40	43			5.08	3151	-34.9	58	53	54	53	53	49	
36" x 30"	7.50	200	1432	-0.06	-	914 x 762	0.70	1.02	676	-1.4	27	27	28	15	-	-	
		400	2864	-0.22	23			2.03	1352	-5.6	40	38	39	32	23	18	
		600	4296	-0.51	32			3.05	2028	-12.6	48	45	46	41	37	31	
		800	5728	-0.90	38			4.06	2703	-22.4	54	50	50	48	46	41	
		1000	7160	-1.40	43			5.08	3379	-34.9	58	53	54	53	53	49	

NOTE: See notes on page J1-66.

S480 / S5480

Return Grille | Heavy Duty



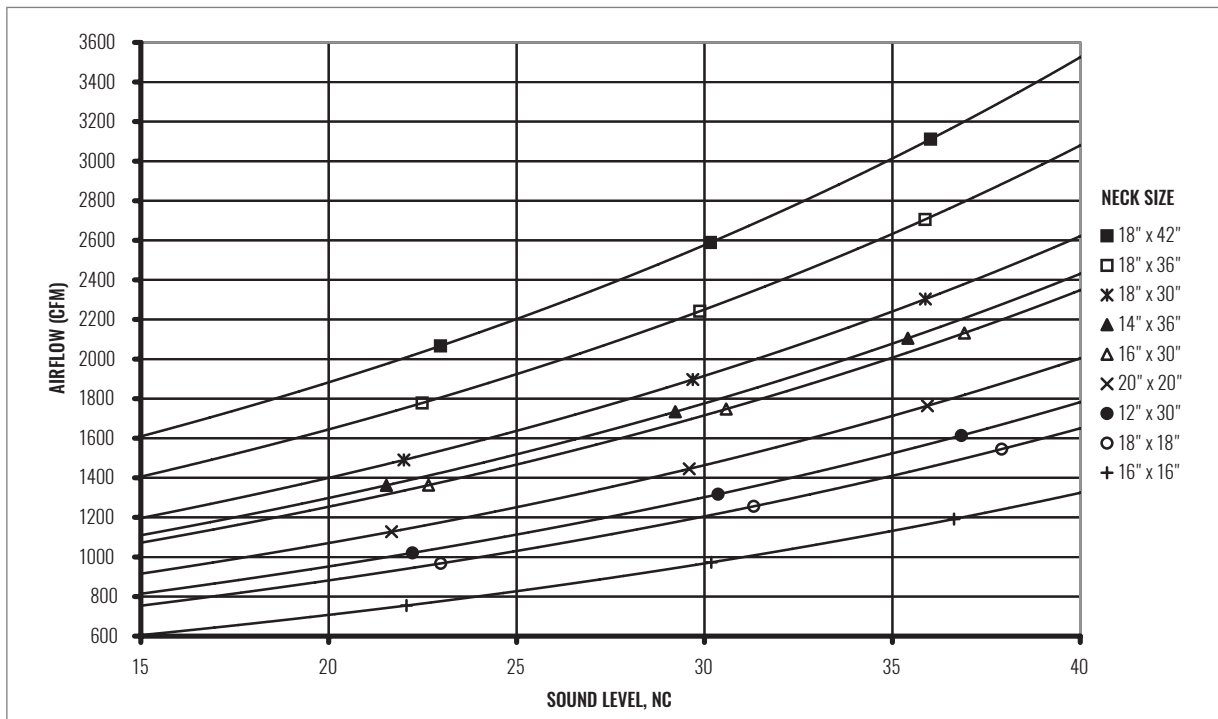
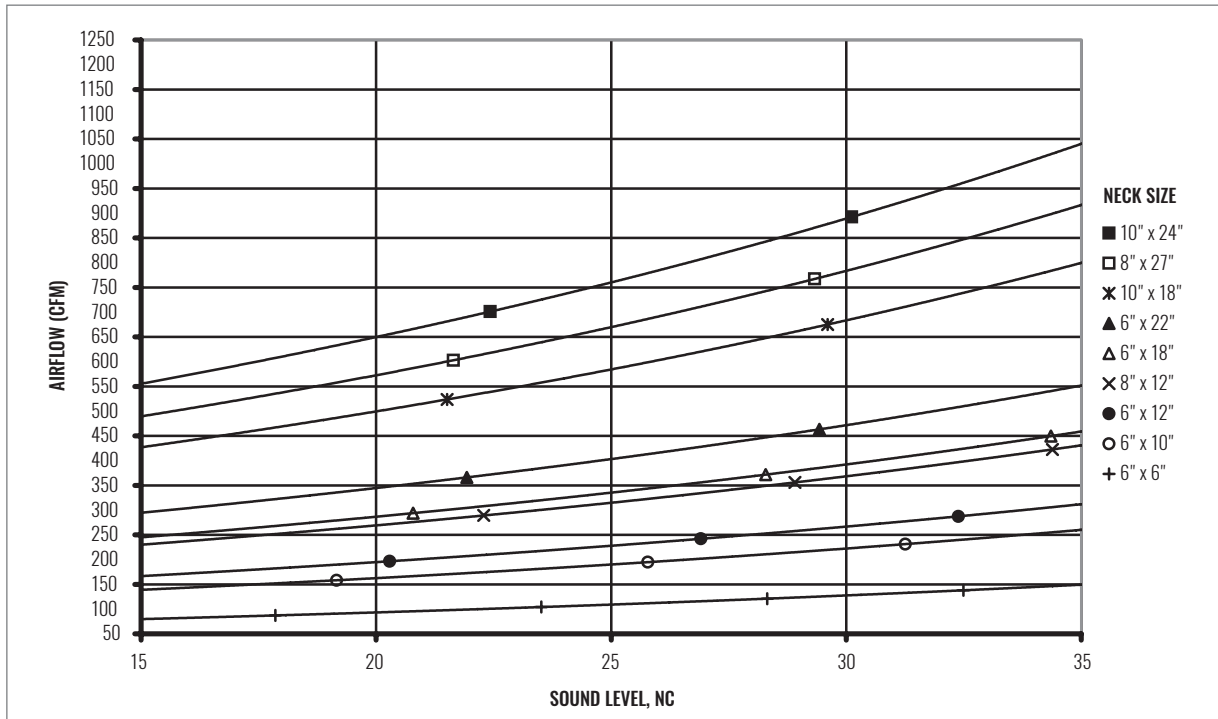
GRILLES | RETURN

PERFORMANCE DATA | S480 | 0° DEFLECTION (NO DAMPER)

DUCT in	IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
	DUCT AREA ft ²	NECK VEL FPM	AIRFLOW CFM	Ps "WG		DUCT mm	DUCT AREA m ²	NECK VEL m/s	AIRFLOW L/s	Ps Pa	2	3	4	5	6	7	
34" x 34"	8.03	100	768	-0.01	-	864 x 864	0.75	0.51	362	-0.4	13	16	18	-	-	-	
		300	2303	-0.13	17			1.52	1087	-3.1	35	34	35	25	14	-	
		500	3839	-0.35	28			2.54	1812	-8.7	45	42	43	37	31	26	
		700	5374	-0.69	36			3.56	2536	-17.1	51	48	48	45	42	37	
		900	6910	-1.14	41			4.57	3261	-28.3	56	52	52	51	50	46	
42" x 30"	8.75	100	838	-0.01	-	1067 x 762	0.81	0.51	395	-0.4	14	17	18	-	-	-	
		300	2514	-0.13	17			1.52	1186	-3.1	35	34	35	25	15	-	
		500	4189	-0.35	28			2.54	1977	-8.7	45	43	44	38	31	26	
		700	5865	-0.69	36			3.56	2768	-17.1	52	48	49	46	42	37	
		900	7541	-1.14	42			4.57	3559	-28.3	57	52	53	52	50	46	
48" x 30"	10.00	100	960	-0.01	-	1219 x 762	0.93	0.51	453	-0.4	14	17	19	-	-	-	
		300	2879	-0.13	18			1.52	1359	-3.1	36	35	36	26	15	-	
		500	4799	-0.35	29			2.54	2265	-8.7	46	43	44	38	32	27	
		700	6718	-0.69	37			3.56	3171	-17.1	52	49	49	46	43	38	
		900	8638	-1.14	42			4.57	4077	-28.3	57	53	53	52	51	47	
42" x 36"	10.50	100	1010	-0.01	-	1067 x 914	0.98	0.51	477	-0.4	15	17	19	-	-	-	
		300	3029	-0.13	18			1.52	1430	-3.1	36	35	36	26	16	-	
		500	5049	-0.35	29			2.54	2383	-8.7	46	44	44	38	32	27	
		700	7068	-0.69	37			3.56	3336	-17.1	53	49	50	46	43	38	
		900	9088	-1.14	42			4.57	4289	-28.3	58	53	54	52	51	47	
42" x 38"	11.08	100	1067	-0.01	-	1067 x 965	1.03	0.51	504	-0.4	15	18	19	-	-	-	
		300	3201	-0.13	18			1.52	1511	-3.1	36	36	37	27	16	-	
		500	5335	-0.35	29			2.54	2518	-8.7	46	44	45	39	32	27	
		700	7469	-0.69	37			3.56	3525	-17.1	53	49	50	47	43	38	
		900	9604	-1.14	43			4.57	4532	-28.3	58	53	54	53	51	47	
48" x 36"	12.00	100	1157	-0.01	-	1219 x 914	1.11	0.51	546	-0.4	15	18	19	-	-	-	
		300	3470	-0.13	18			1.52	1638	-3.1	37	36	37	27	16	-	
		500	5783	-0.35	30			2.54	2729	-8.7	47	44	45	39	33	27	
		700	8096	-0.69	37			3.56	3821	-17.1	53	50	50	47	44	39	
		900	10410	-1.14	43			4.57	4913	-28.3	58	54	54	53	52	47	
44" x 44"	13.44	100	1299	-0.01	-	1118 x 1118	1.25	0.51	613	-0.4	16	19	20	-	-	-	
		300	3897	-0.13	19			1.52	1839	-3.1	37	36	37	27	17	11	
		500	6495	-0.35	30			2.54	3065	-8.7	47	45	45	40	33	28	
		700	9093	-0.69	38			3.56	4291	-17.1	54	50	51	48	44	39	
		900	11691	-1.14	44			4.57	5518	-28.3	59	54	55	54	52	48	
46" x 46"	14.69	100	1422	-0.01	-	1168 x 1168	1.37	0.51	671	-0.4	12	15	16	-	-	-	
		300	4266	-0.13	19			1.52	2013	-3.1	33	33	34	24	13	-	
		500	7110	-0.35	31			2.54	3355	-8.7	43	41	42	36	29	24	
		700	9953	-0.69	38			3.56	4697	-17.1	50	46	47	44	40	36	
		900	12797	-1.14	44			4.57	6040	-28.3	55	50	51	50	48	44	
48" x 48"	16.00	100	1550	-0.01	-	1219 x 1219	1.49	0.51	732	-0.4	12	15	17	-	-	-	
		300	4651	-0.13	20			1.52	2195	-3.1	34	33	34	24	13	-	
		500	7752	-0.35	31			2.54	3659	-8.7	44	41	42	36	30	24	
		700	10853	-0.69	39			3.56	5122	-17.1	50	47	47	44	41	36	
		900	13954	-1.14	44			4.57	6585	-28.3	55	51	51	50	49	44	

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.

SOUND CHARTS | S5480 | 30° DEFLECTION (NO DAMPER)



GRILLES | RETURN

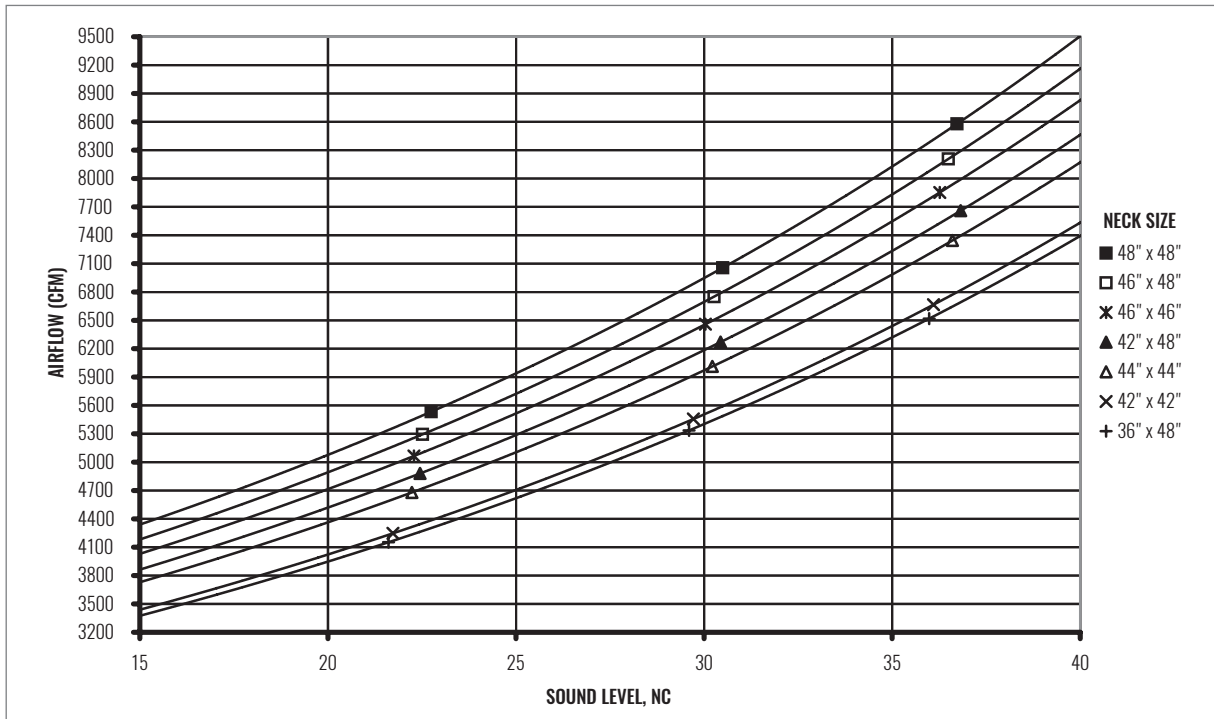
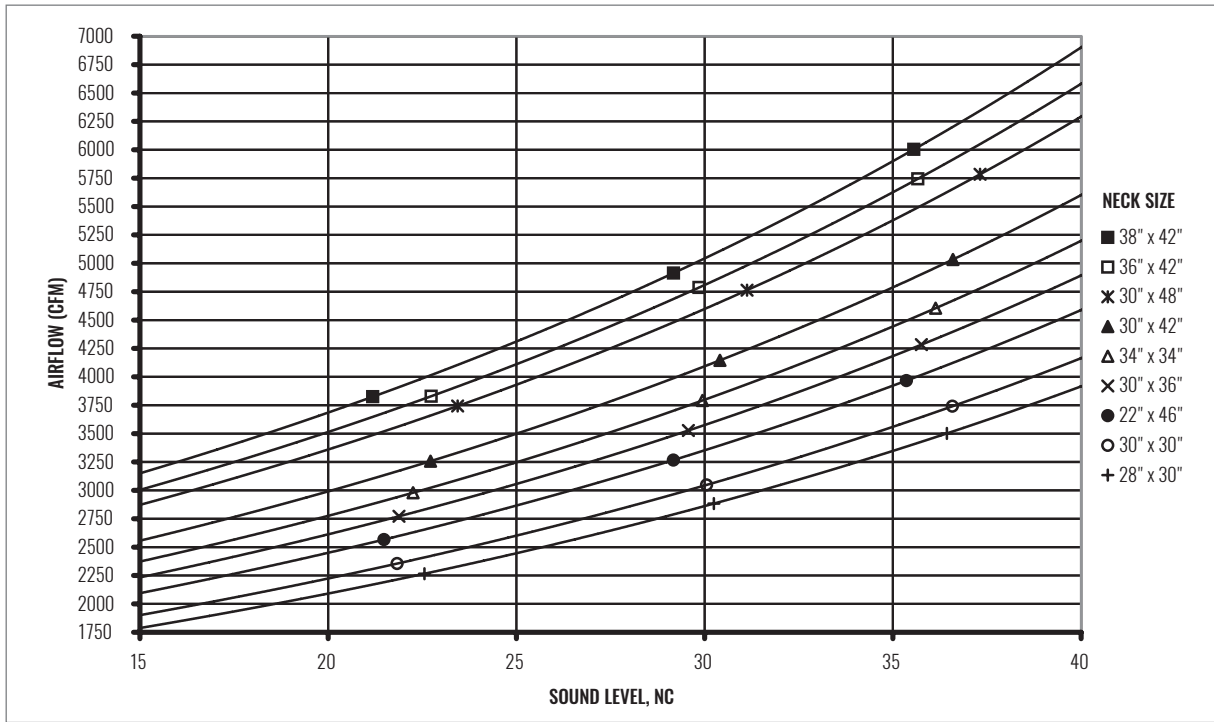
S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

SOUND CHARTS | S5480 | 30° DEFLECTION (NO DAMPER)



PERFORMANCE DATA | S5480 | 30° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
6" x 6"	0.25	560	70	-0.69	11	152 x 152	0.02	2.84	33	-17.2	28	25	26	20	14	-	
		695	87	-1.06	18			3.53	41	-26.5	34	31	31	28	24	19	
		830	104	-1.52	24			4.22	49	-37.7	39	35	36	34	32	27	
		965	121	-2.05	28			4.90	57	-51.0	44	39	39	39	38	34	
		1100	138	-2.66	32			5.59	65	-66.3	47	42	42	42	43	44	40
10" x 6"	0.42	500	122	-0.55	11	254 x 152	0.04	2.54	57	-13.7	28	26	26	20	12	-	
		650	158	-0.93	19			3.30	75	-23.1	35	32	33	29	24	19	
		800	195	-1.41	26			4.06	92	-35.1	41	37	38	36	33	29	
		950	231	-1.99	31			4.83	109	-49.4	46	42	42	42	41	37	
		1100	268	-2.66	36			5.59	126	-66.3	51	45	46	47	48	44	
12" x 6"	0.50	500	151	-0.55	12	305 x 152	0.05	2.54	71	-13.7	29	27	28	21	13	-	
		650	197	-0.93	20			3.30	93	-23.1	36	33	34	30	25	20	
		800	242	-1.41	27			4.06	114	-35.1	42	38	39	37	34	30	
		950	287	-1.99	32			4.83	136	-49.4	47	43	43	43	42	38	
		1100	333	-2.66	37			5.59	157	-66.3	52	46	47	48	49	45	
12" x 8"	0.67	500	222	-0.55	14	305 x 203	0.06	2.54	105	-13.7	31	29	29	22	15	-	
		650	289	-0.93	22			3.30	136	-23.1	38	35	36	31	27	22	
		800	356	-1.41	29			4.06	168	-35.1	44	40	41	39	36	32	
		950	423	-1.99	34			4.83	199	-49.4	49	44	45	44	44	40	
		1100	489	-2.66	39			5.59	231	-66.3	54	48	49	50	51	47	
18" x 6"	0.75	450	216	-0.45	11	457 x 152	0.07	2.29	102	-11.1	28	26	27	19	11	-	
		613	294	-0.83	21			3.11	139	-20.6	37	34	35	30	25	19	
		775	372	-1.32	28			3.94	175	-32.9	44	40	40	38	35	31	
		938	450	-1.93	34			4.76	212	-48.1	49	44	45	44	44	40	
		1100	528	-2.66	39			5.59	249	-66.3	54	48	49	50	51	47	
22" x 6"	0.92	450	269	-0.45	12	559 x 152	0.09	2.29	127	-11.1	29	27	28	20	12	-	
		613	366	-0.83	22			3.11	173	-20.6	38	35	36	31	26	20	
		775	463	-1.32	29			3.94	219	-32.9	45	41	41	39	36	32	
		938	560	-1.93	35			4.76	264	-48.1	50	46	46	45	45	41	
		1100	657	-2.66	41			5.59	310	-66.3	55	50	50	51	52	48	
18" x 10"	1.25	400	372	-0.35	11	457 x 254	0.12	2.03	176	-8.8	28	27	28	18	-	-	
		563	524	-0.70	22			2.86	247	-17.3	38	35	36	30	24	19	
		725	675	-1.16	30			3.68	319	-28.8	45	41	42	39	36	31	
		888	826	-1.73	36			4.51	390	-43.1	51	46	47	46	45	40	
		1050	978	-2.43	41			5.33	461	-60.4	56	50	51	52	52	48	
27" x 8"	1.50	400	438	-0.35	11	686 x 203	0.14	2.03	207	-8.8	29	27	28	19	-	-	
		550	603	-0.67	22			2.79	284	-16.6	38	35	36	30	24	18	
		700	767	-1.08	29			3.56	362	-26.8	45	41	42	38	35	30	
		850	932	-1.59	36			4.32	440	-39.6	50	46	47	45	44	39	
		1000	1096	-2.20	41			5.08	517	-54.8	55	50	51	51	51	47	
24" x 10"	1.67	400	510	-0.35	12	610 x 254	0.15	2.03	241	-8.8	29	28	29	20	-	-	
		550	701	-0.67	22			2.79	331	-16.6	39	36	37	31	25	19	
		700	892	-1.08	30			3.56	421	-26.8	46	42	43	39	36	31	
		850	1084	-1.59	36			4.32	511	-39.6	51	47	47	46	44	40	
		1000	1275	-2.20	41			5.08	602	-54.8	56	51	51	51	51	48	
16" x 16"	1.78	380	536	-0.32	11	406 x 406	0.17	1.93	253	-7.9	28	27	28	19	-	-	
		535	754	-0.63	22			2.72	356	-15.7	38	36	37	30	24	18	
		690	973	-1.05	30			3.51	459	-26.1	46	42	43	39	35	30	
		845	1192	-1.57	37			4.29	562	-39.1	51	47	48	46	45	40	
		1000	1410	-2.20	42			5.08	666	-54.8	56	51	52	52	52	48	
18" x 18"	2.25	370	678	-0.30	12	457 x 457	0.21	1.88	320	-7.5	29	28	29	19	-	-	
		528	967	-0.61	23			2.68	457	-15.2	39	37	38	31	25	19	
		685	1256	-1.03	31			3.48	593	-25.7	47	43	44	40	36	31	
		843	1545	-1.56	38			4.28	729	-38.9	53	48	49	47	46	41	
		1000	1834	-2.20	43			5.08	865	-54.8	58	53	53	53	53	49	

NOTE: See notes on page J1-71.

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Return Grille | Heavy Duty



GRILLES | RETURN

PERFORMANCE DATA | S5480 | 30° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft ²	FPM	CFM	"WG	mm		m ²	m/s	L/s	Pa	2	3	4	5	6	7		
30" x 12"	2.50	360	724	-0.29	11	762 x 305	0.23	1.83	342	-7.1	28	28	29	19	-	-		
		508	1021	-0.57	22			2.58	482	-14.1	38	36	37	30	23	18		
		655	1317	-0.94	30			3.33	622	-23.5	46	43	43	39	35	30		
		803	1614	-1.42	37			4.08	762	-35.3	52	48	48	46	44	39		
		950	1910	-1.99	42			4.83	902	-49.4	57	52	52	52	52	47		
20" x 20"	2.78	350	810	-0.27	11	508 x 508	0.26	1.78	382	-6.7	28	28	29	18	-	-		
		488	1128	-0.52	22			2.48	532	-13.0	38	36	37	30	22	17		
		625	1446	-0.86	30			3.18	682	-21.4	45	42	43	38	33	28		
		763	1764	-1.28	36			3.87	832	-31.8	51	47	48	45	42	38		
		900	2082	-1.78	41			4.57	982	-44.4	56	51	52	51	50	46		
30" x 16"	3.33	350	978	-0.27	12	762 x 406	0.31	1.78	462	-6.7	26	25	26	16	-	-		
		488	1363	-0.52	23			2.48	643	-13.0	35	33	34	27	20	14		
		625	1747	-0.86	31			3.18	825	-21.4	43	40	40	36	31	26		
		763	2132	-1.28	37			3.87	1006	-31.8	48	44	45	43	40	35		
		900	2516	-1.78	42			4.57	1187	-44.4	53	49	49	48	47	43		
36" x 14"	3.50	340	991	-0.25	11	914 x 356	0.33	1.73	468	-6.3	29	28	29	19	-	-		
		468	1362	-0.48	22			2.38	643	-12.0	38	36	37	29	21	16		
		595	1734	-0.78	29			3.02	818	-19.4	45	42	43	38	32	27		
		723	2105	-1.15	35			3.67	993	-28.6	50	47	47	44	41	36		
		850	2477	-1.59	41			4.32	1169	-39.6	55	51	51	50	48	44		
30" x 18"	3.75	340	1084	-0.25	12	762 x 457	0.35	1.73	512	-6.3	29	28	30	19	-	-		
		468	1490	-0.48	22			2.38	703	-12.0	38	36	37	30	22	16		
		595	1897	-0.78	30			3.02	895	-19.4	45	42	43	38	33	28		
		723	2303	-1.15	36			3.67	1087	-28.6	51	47	48	45	42	37		
		850	2710	-1.59	41			4.32	1279	-39.6	56	51	52	50	49	44		
36" x 18"	4.50	340	1314	-0.25	13	914 x 457	0.42	1.73	620	-6.3	30	29	30	20	-	-		
		460	1778	-0.47	22			2.34	839	-11.6	39	37	38	30	22	16		
		580	2242	-0.74	30			2.95	1058	-18.4	45	43	43	38	33	27		
		700	2706	-1.08	36			3.56	1277	-26.8	51	47	48	45	41	36		
		820	3169	-1.48	41			4.17	1496	-36.8	56	51	52	50	48	44		
42" x 18"	5.25	340	1544	-0.25	14	1067 x 457	0.49	1.73	729	-6.3	25	24	25	14	-	-		
		455	2067	-0.46	23			2.31	975	-11.3	33	31	32	24	16	-		
		570	2589	-0.71	30			2.90	1222	-17.8	40	37	38	32	26	21		
		685	3111	-1.03	36			3.48	1468	-25.7	45	41	42	38	35	30		
		800	3634	-1.41	41			4.06	1715	-35.1	49	45	46	44	42	37		
30" x 28"	5.83	320	1648	-0.23	12	762 x 711	0.54	1.63	778	-5.6	30	29	30	19	-	-		
		440	2266	-0.43	23			2.24	1069	-10.6	39	37	38	30	22	16		
		560	2884	-0.69	30			2.84	1361	-17.2	46	43	44	38	32	27		
		680	3502	-1.02	36			3.45	1653	-25.3	51	48	49	45	41	36		
		800	4120	-1.41	42			4.06	1944	-35.1	56	52	53	51	49	44		
30" x 30"	6.25	300	1663	-0.20	11	762 x 762	0.58	1.52	785	-4.9	28	28	29	17	-	-		
		425	2355	-0.40	22			2.16	1112	-9.9	38	37	38	29	20	14		
		550	3048	-0.67	30			2.79	1439	-16.6	46	43	44	38	32	27		
		675	3741	-1.00	37			3.43	1766	-25.0	52	48	49	45	41	36		
		800	4434	-1.41	42			4.06	2092	-35.1	57	52	53	51	49	44		
46" x 22"	7.03	300	1867	-0.20	11	1168 x 559	0.65	1.52	881	-4.9	29	29	30	18	-	-		
		413	2567	-0.37	21			2.10	1211	-9.3	38	37	37	29	20	14		
		525	3267	-0.61	29			2.67	1542	-15.1	45	42	43	37	31	25		
		638	3967	-0.89	35			3.24	1872	-22.3	51	47	48	44	39	34		
		750	4667	-1.24	41			3.81	2203	-30.8	55	51	52	49	47	42		
36" x 30"	7.50	300	2016	-0.20	12	914 x 762	0.70	1.52	951	-4.9	29	29	30	18	-	-		
		413	2772	-0.37	22			2.10	1308	-9.3	38	37	38	29	20	14		
		525	3528	-0.61	30			2.67	1665	-15.1	45	43	44	38	31	25		
		638	4283	-0.89	36			3.24	2022	-22.3	51	48	48	44	40	35		
		750	5039	-1.24	41			3.81	2378	-30.8	56	52	52	50	47	42		

NOTE: See notes on page J1-71.

PERFORMANCE DATA | S5480 | 30° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
34" x 34"	8.03	300	2167	-0.20	12	864 x 864	0.75	1.52	1023	-4.9	21	21	22	11	-	-	
		413	2979	-0.37	22			2.10	1406	-9.3	31	29	30	21	12	-	
		525	3792	-0.61	30			2.67	1790	-15.1	38	35	36	30	23	17	
		638	4604	-0.89	36			3.24	2173	-22.3	43	40	41	36	32	27	
		750	5417	-1.24	41			3.81	2557	-30.8	48	44	45	42	39	34	
42" x 30"	8.75	300	2369	-0.20	13	1067 x 762	0.81	1.52	1118	-4.9	30	30	31	19	-	-	
		413	3257	-0.37	23			2.10	1537	-9.3	39	38	39	30	21	15	
		525	4146	-0.61	30			2.67	1956	-15.1	46	44	44	38	32	26	
		638	5034	-0.89	37			3.24	2376	-22.3	52	48	49	45	40	35	
		750	5922	-1.24	42			3.81	2795	-30.8	56	52	53	51	48	43	
48" x 30"	10.00	300	2722	-0.20	13	1219 x 762	0.93	1.52	1285	-4.9	31	30	32	20	-	-	
		413	3743	-0.37	23			2.10	1766	-9.3	40	38	39	31	22	15	
		525	4764	-0.61	31			2.67	2248	-15.1	47	44	45	39	32	27	
		638	5784	-0.89	37			3.24	2730	-22.3	52	49	50	46	41	36	
		750	6805	-1.24	42			3.81	3212	-30.8	57	53	54	51	49	44	
42" x 36"	10.50	300	2872	-0.20	14	1067 x 914	0.98	1.52	1355	-4.9	31	31	32	20	-	-	
		400	3829	-0.35	23			2.03	1807	-8.8	39	38	39	30	20	14	
		500	4787	-0.55	30			2.54	2259	-13.7	46	43	44	38	30	25	
		600	5744	-0.79	36			3.05	2711	-19.7	51	48	49	44	39	34	
		700	6701	-1.08	41			3.56	3163	-26.8	55	52	52	49	46	41	
42" x 38"	11.08	270	2736	-0.16	11	1067 x 965	1.03	1.37	1291	-4.0	18	18	19	-	-	-	
		378	3825	-0.31	21			1.92	1805	-7.8	28	27	28	18	-	-	
		485	4914	-0.52	29			2.46	2319	-12.9	35	33	34	27	19	13	
		593	6003	-0.77	36			3.01	2833	-19.2	41	38	39	33	28	23	
		700	7093	-1.08	41			3.56	3347	-26.8	46	42	43	39	36	31	
48" x 36"	12.00	270	2970	-0.16	11	1219 x 914	1.11	1.37	1402	-4.0	28	29	30	17	-	-	
		378	4153	-0.31	22			1.92	1960	-7.8	38	37	38	29	19	12	
		485	5335	-0.52	30			2.46	2518	-12.9	45	43	44	37	30	24	
		593	6518	-0.77	36			3.01	3076	-19.2	51	48	49	44	39	34	
		700	7700	-1.08	41			3.56	3634	-26.8	56	52	53	50	46	42	
44" x 44"	13.44	270	3347	-0.16	12	1118 x 1118	1.25	1.37	1580	-4.0	29	29	30	18	-	-	
		378	4680	-0.31	22			1.92	2209	-7.8	39	38	39	29	19	13	
		485	6012	-0.52	30			2.46	2837	-12.9	46	44	45	38	30	25	
		593	7345	-0.77	37			3.01	3466	-19.2	52	49	50	45	39	34	
		700	8677	-1.08	42			3.56	4095	-26.8	57	53	54	50	47	42	
46" x 46"	14.69	270	3671	-0.16	12	1168 x 1168	1.37	1.37	1733	-4.0	29	30	31	18	-	-	
		373	5065	-0.31	22			1.89	2390	-7.6	39	38	39	29	19	13	
		475	6459	-0.50	30			2.41	3048	-12.4	46	44	45	38	30	24	
		578	7853	-0.73	36			2.93	3706	-18.3	51	49	49	44	39	33	
		680	9246	-1.02	41			3.45	4364	-25.3	56	53	53	50	46	41	
48" x 48"	16.00	270	4011	-0.16	12	1219 x 1219	1.49	1.37	1893	-4.0	30	30	31	19	-	-	
		373	5533	-0.31	23			1.89	2611	-7.6	39	38	39	30	19	13	
		475	7056	-0.50	30			2.41	3330	-12.4	46	44	45	38	30	25	
		578	8579	-0.73	37			2.93	4049	-18.3	52	49	50	45	39	34	
		680	10101	-1.02	42			3.45	4767	-25.3	57	53	54	50	47	42	

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.

GRILLES | RETURN

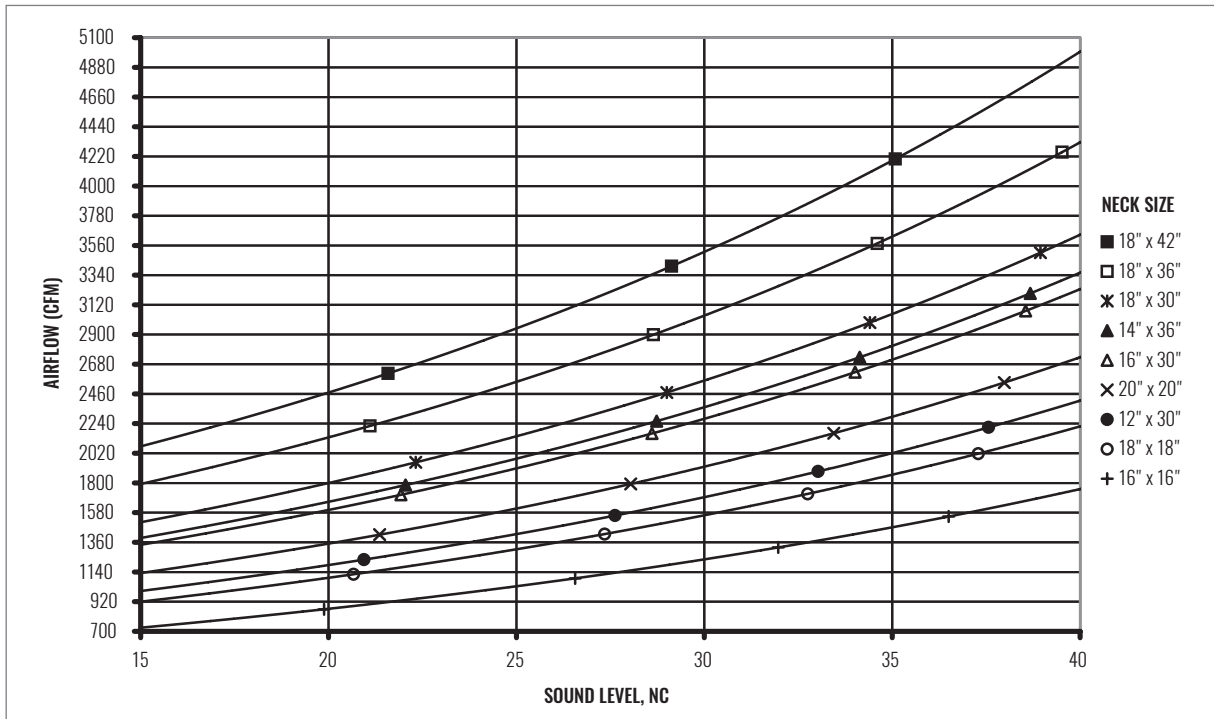
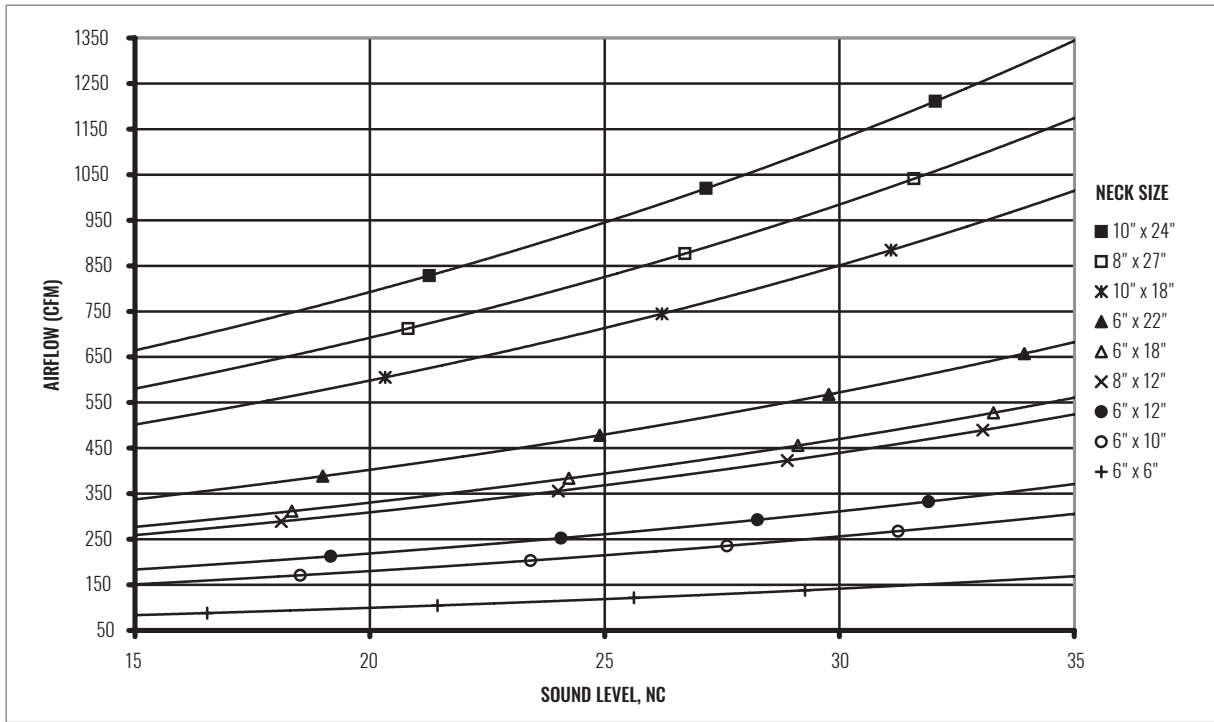
S480 / S5480

Return Grille | Heavy Duty

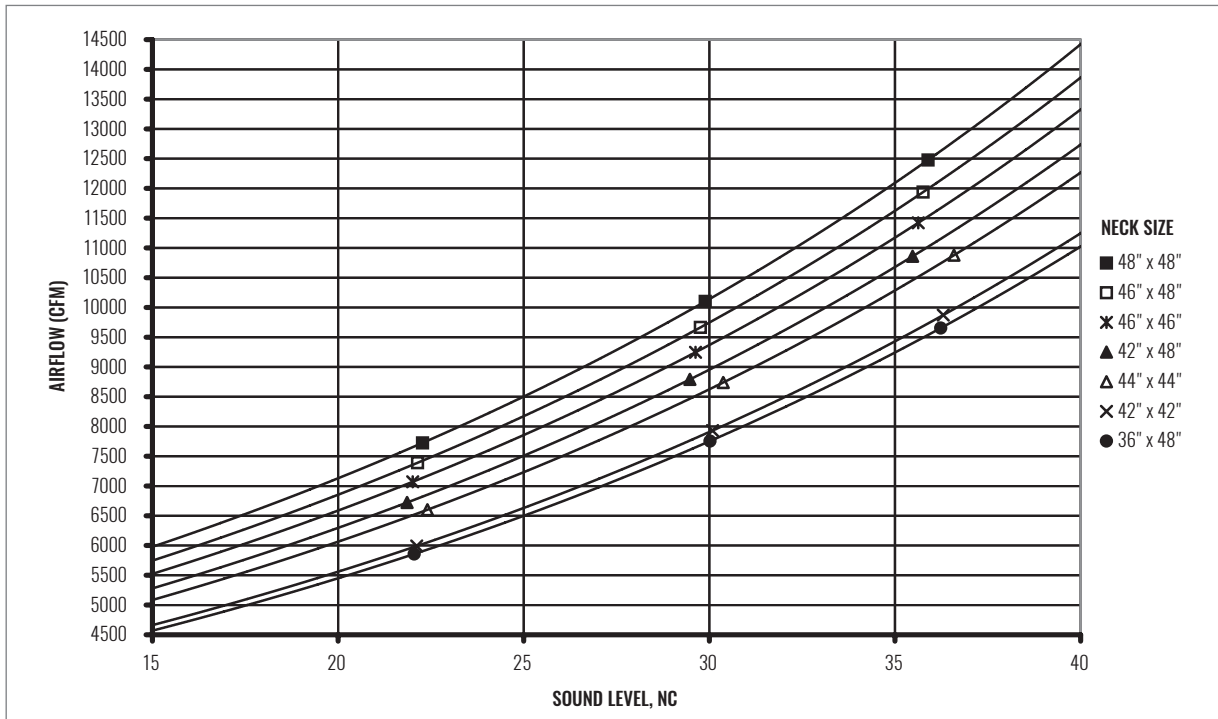
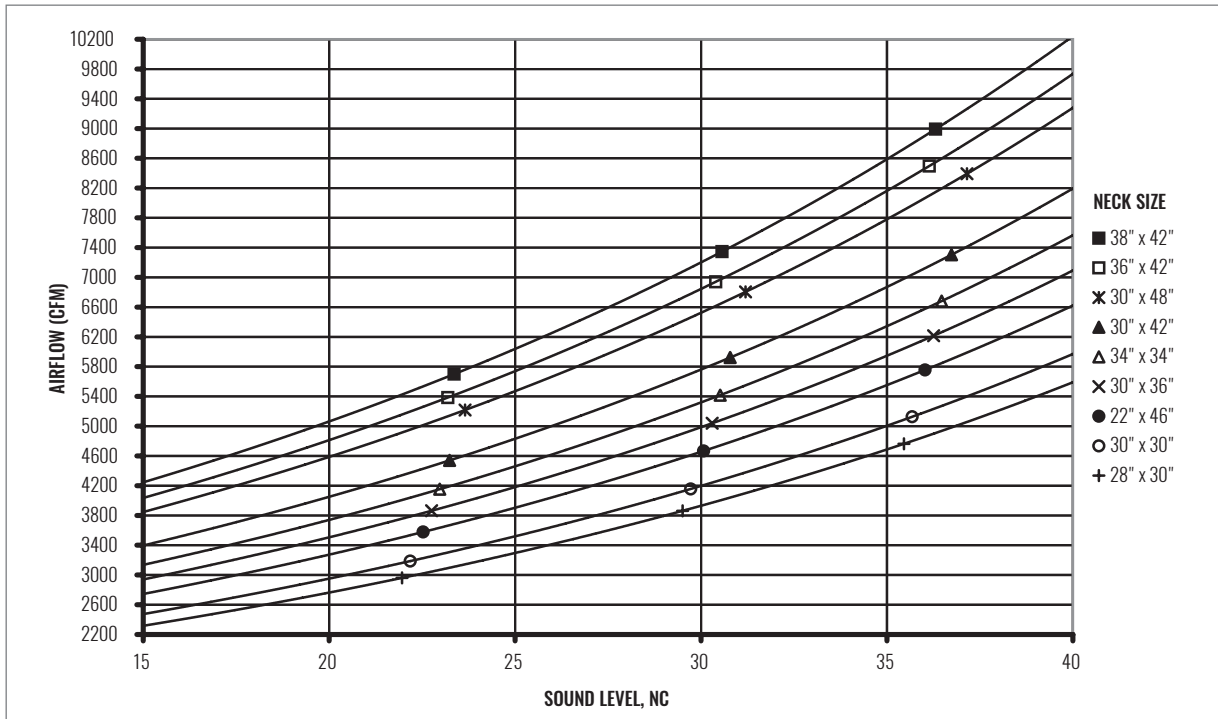


GRILLES | RETURN

SOUND CHARTS | S5480 | 0° DEFLECTION (NO DAMPER)



SOUND CHARTS | S5480 | 0° DEFLECTION (NO DAMPER)



GRILLES | RETURN

S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

PERFORMANCE DATA | S5480 | 0° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft ²	FPM	CFM	"WG	mm		m ²	m/s	L/s	Pa	2	3	4	5	6	7		
6" x 6"	0.25	570	71	-0.42	11	152 x 152	0.02	2.90	34	-10.4	27	24	25	20	14	-		
		703	88	-0.63	17			3.57	42	-15.8	33	29	30	26	22	18		
		835	105	-0.89	21			4.24	49	-22.3	37	33	33	32	30	25		
		968	121	-1.20	26			4.92	57	-29.9	41	36	37	36	36	31		
		1100	138	-1.55	29			5.59	65	-38.6	44	39	39	40	41	37		
10" x 6"	0.42	570	139	-0.42	13	254 x 152	0.04	2.90	66	-10.4	29	26	27	22	16	-		
		703	171	-0.63	19			3.57	81	-15.8	34	31	32	28	24	19		
		835	203	-0.89	23			4.24	96	-22.3	39	35	35	33	31	27		
		968	236	-1.20	28			4.92	111	-29.9	43	38	39	38	37	33		
		1100	268	-1.55	31			5.59	126	-38.6	46	41	41	42	43	39		
12" x 6"	0.50	570	172	-0.42	13	305 x 152	0.05	2.90	81	-10.4	30	27	28	22	16	11		
		703	213	-0.63	19			3.57	100	-15.8	35	31	32	29	25	20		
		835	253	-0.89	24			4.24	119	-22.3	39	35	36	34	32	27		
		968	293	-1.20	28			4.92	138	-29.9	43	39	39	39	38	34		
		1100	333	-1.55	32			5.59	157	-38.6	47	41	42	42	43	39		
12" x 8"	0.67	500	222	-0.32	11	305 x 203	0.06	2.54	105	-8.0	27	25	26	19	12	-		
		650	289	-0.54	18			3.30	136	-13.5	34	31	32	27	23	18		
		800	356	-0.82	24			4.06	168	-20.4	39	35	36	34	31	27		
		950	423	-1.16	29			4.83	199	-28.8	44	39	40	39	38	34		
		1100	489	-1.55	33			5.59	231	-38.6	48	42	43	44	44	40		
18" x 6"	0.75	500	240	-0.32	11	457 x 152	0.07	2.54	113	-8.0	27	25	26	19	12	-		
		650	312	-0.54	18			3.30	147	-13.5	34	31	32	27	23	18		
		800	384	-0.82	24			4.06	181	-20.4	40	36	36	34	31	27		
		950	456	-1.16	29			4.83	215	-28.8	44	39	40	39	38	34		
		1100	528	-1.55	33			5.59	249	-38.6	48	43	43	44	44	40		
22" x 6"	0.92	500	299	-0.32	12	559 x 152	0.09	2.54	141	-8.0	28	26	27	20	13	-		
		650	388	-0.54	19			3.30	183	-13.5	35	32	32	28	23	18		
		800	478	-0.82	25			4.06	226	-20.4	40	36	37	34	32	27		
		950	568	-1.16	30			4.83	268	-28.8	45	40	41	40	39	35		
		1100	657	-1.55	34			5.59	310	-38.6	49	43	44	44	45	41		
18" x 10"	1.25	500	465	-0.32	13	457 x 254	0.12	2.54	220	-8.0	29	27	28	21	14	-		
		650	605	-0.54	20			3.30	286	-13.5	36	33	34	29	25	20		
		800	745	-0.82	26			4.06	352	-20.4	41	37	38	36	33	28		
		950	884	-1.16	31			4.83	417	-28.8	46	41	42	41	40	36		
		1100	1024	-1.55	35			5.59	483	-38.6	50	45	45	46	46	42		
27" x 8"	1.50	500	548	-0.32	13	686 x 203	0.14	2.54	259	-8.0	30	27	28	22	14	-		
		650	712	-0.54	21			3.30	336	-13.5	36	33	34	30	25	20		
		800	877	-0.82	27			4.06	414	-20.4	42	38	39	36	34	29		
		950	1041	-1.16	32			4.83	491	-28.8	46	42	42	41	41	36		
		1100	1206	-1.55	36			5.59	569	-38.6	50	45	46	46	47	43		
24" x 10"	1.67	500	637	-0.32	14	610 x 254	0.15	2.54	301	-8.0	30	28	29	22	15	-		
		650	829	-0.54	21			3.30	391	-13.5	37	34	34	30	25	20		
		800	1020	-0.82	27			4.06	481	-20.4	42	38	39	37	34	29		
		950	1211	-1.16	32			4.83	572	-28.8	47	42	43	42	41	37		
		1100	1402	-1.55	36			5.59	662	-38.6	51	45	46	46	47	43		
16" x 16"	1.78	450	635	-0.26	11	406 x 406	0.17	2.29	299	-6.5	28	26	27	19	11	-		
		613	864	-0.48	20			3.11	408	-12.0	36	33	33	29	23	18		
		775	1093	-0.77	27			3.94	516	-19.2	42	38	39	36	33	28		
		938	1322	-1.13	32			4.76	624	-28.1	47	42	43	42	41	36		
		1100	1551	-1.55	37			5.59	732	-38.6	51	46	46	47	47	43		
18" x 18"	2.25	450	825	-0.26	12	457 x 457	0.21	2.29	389	-6.5	28	27	27	20	11	-		
		613	1123	-0.48	21			3.11	530	-12.0	36	33	34	29	24	19		
		775	1421	-0.77	27			3.94	671	-19.2	42	39	39	37	34	29		
		938	1719	-1.13	33			4.76	811	-28.1	47	43	43	42	41	37		
		1100	2017	-1.55	37			5.59	952	-38.6	52	46	47	47	48	44		

NOTE: See notes on page J1-76.

PERFORMANCE DATA | S5480 | 0° DEFLECTION (NO DAMPER)

IP DATA					NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps		DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	OCTAVE BAND, dB						
in	ft ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
30" x 12"	2.50	450	905	-0.26	12	762 x 305	0.23	2.29	427	-6.5	29	27	28	20	12	-	
		613	1232	-0.48	21			3.11	581	-12.0	37	34	34	29	24	19	
		775	1558	-0.77	28			3.94	735	-19.2	43	39	40	37	34	29	
		938	1885	-1.13	33			4.76	890	-28.1	48	43	44	43	42	37	
		1100	2212	-1.55	38			5.59	1044	-38.6	52	47	47	48	48	44	
20" x 20"	2.78	450	1041	-0.26	13	508 x 508	0.26	2.29	491	-6.5	29	27	28	20	12	-	
		613	1417	-0.48	21			3.11	669	-12.0	37	34	35	30	25	19	
		775	1793	-0.77	28			3.94	846	-19.2	43	39	40	37	34	29	
		938	2168	-1.13	33			4.76	1023	-28.1	48	44	44	43	42	38	
		1100	2544	-1.55	38			5.59	1201	-38.6	52	47	48	48	49	45	
30" x 16"	3.33	450	1258	-0.26	13	762 x 406	0.31	2.29	594	-6.5	28	26	27	19	11	-	
		613	1712	-0.48	22			3.11	808	-12.0	36	33	33	28	23	18	
		775	2167	-0.77	29			3.94	1023	-19.2	42	38	38	36	33	28	
		938	2621	-1.13	34			4.76	1237	-28.1	47	42	43	42	41	36	
		1100	3075	-1.55	39			5.59	1451	-38.6	51	46	46	47	47	43	
36" x 14"	3.50	450	1311	-0.26	13	914 x 356	0.33	2.29	619	-6.5	30	28	29	21	13	-	
		613	1785	-0.48	22			3.11	842	-12.0	38	35	35	30	25	20	
		775	2258	-0.77	29			3.94	1066	-19.2	44	40	41	38	35	30	
		938	2732	-1.13	34			4.76	1289	-28.1	49	44	45	44	43	38	
		1100	3205	-1.55	39			5.59	1513	-38.6	53	48	48	49	49	45	
30" x 18"	3.75	450	1435	-0.26	14	762 x 457	0.35	2.29	677	-6.5	30	28	29	21	13	-	
		613	1953	-0.48	22			3.11	922	-12.0	38	35	36	31	25	20	
		775	2471	-0.77	29			3.94	1166	-19.2	44	40	41	38	35	30	
		938	2989	-1.13	34			4.76	1411	-28.1	49	44	45	44	43	39	
		1100	3507	-1.55	39			5.59	1655	-38.6	53	48	48	49	49	45	
36" x 18"	4.50	400	1546	-0.21	11	914 x 457	0.42	2.03	730	-5.1	27	26	27	18	-	-	
		575	2222	-0.42	21			2.92	1049	-10.6	37	34	35	29	23	18	
		750	2899	-0.72	29			3.81	1368	-18.0	44	40	41	38	34	29	
		925	3575	-1.10	35			4.70	1687	-27.3	49	45	45	44	43	38	
		1100	4252	-1.55	40			5.59	2006	-38.6	54	48	49	49	50	46	
42" x 18"	5.25	400	1817	-0.21	11	1067 x 457	0.49	2.03	857	-5.1	24	23	24	15	-	-	
		575	2612	-0.42	22			2.92	1233	-10.6	34	31	32	26	20	15	
		750	3407	-0.72	29			3.81	1608	-18.0	41	37	38	35	31	27	
		925	4201	-1.10	35			4.70	1983	-27.3	46	42	42	41	40	36	
		1100	4996	-1.55	40			5.59	2358	-38.6	51	45	46	46	47	43	
30" x 28"	5.83	400	2060	-0.21	12	762 x 711	0.54	2.03	972	-5.1	28	27	28	19	-	-	
		575	2961	-0.42	22			2.92	1397	-10.6	38	35	36	30	24	19	
		750	3862	-0.72	30			3.81	1823	-18.0	44	41	41	38	35	30	
		925	4764	-1.10	35			4.70	2248	-27.3	50	45	46	45	44	39	
		1100	5665	-1.55	40			5.59	2673	-38.6	54	49	50	50	51	47	
30" x 30"	6.25	400	2217	-0.21	12	762 x 762	0.58	2.03	1046	-5.1	28	27	28	19	-	-	
		575	3187	-0.42	22			2.92	1504	-10.6	38	35	36	30	24	19	
		750	4157	-0.72	30			3.81	1962	-18.0	45	41	42	38	35	30	
		925	5126	-1.10	36			4.70	2419	-27.3	50	46	46	45	44	39	
		1100	6096	-1.55	41			5.59	2877	-38.6	55	49	50	50	51	47	
46" x 22"	7.03	400	2489	-0.21	12	1168 x 559	0.65	2.03	1175	-5.1	29	27	28	19	-	-	
		575	3578	-0.42	23			2.92	1689	-10.6	38	35	36	31	25	19	
		750	4667	-0.72	30			3.81	2203	-18.0	45	41	42	39	35	31	
		925	5756	-1.10	36			4.70	2717	-27.3	50	46	47	45	44	40	
		1100	6845	-1.55	41			5.59	3230	-38.6	55	50	50	51	51	47	
36" x 30"	7.50	400	2688	-0.21	12	914 x 762	0.70	2.03	1268	-5.1	29	28	28	20	-	-	
		575	3864	-0.42	23			2.92	1823	-10.6	38	36	36	31	25	19	
		750	5039	-0.72	30			3.81	2378	-18.0	45	41	42	39	36	31	
		925	6215	-1.10	36			4.70	2933	-27.3	51	46	47	46	44	40	
		1100	7391	-1.55	41			5.59	3488	-38.6	55	50	51	51	51	47	

NOTE: See notes on page J1-76.

S480 / S5480

Return Grille | Heavy Duty



GRILLES | RETURN

PERFORMANCE DATA | S5480 | 0° DEFLECTION (NO DAMPER)

		IP DATA				NC	METRIC DATA					OCTAVE BAND, dB						
DUCT	DUCT AREA	NECK VEL	AIRFLOW	Ps	DUCT		DUCT AREA	NECK VEL	AIRFLOW	Ps								
in	ft ²	FPM	CFM	"WG	mm		m ²	m/s	L/s	Pa	2	3	4	5	6	7		
34" x 34"	8.03	400	2889	-0.21	13	864 x 864	0.75	2.03	1363	-5.1	24	23	24	15	-	-		
		575	4153	-0.42	23			2.92	1960	-10.6	34	31	32	26	21	15		
		750	5417	-0.72	31			3.81	2557	-18.0	41	37	38	35	31	27		
		925	6681	-1.10	36			4.70	3153	-27.3	46	42	42	41	40	36		
		1100	7945	-1.55	41			5.59	3750	-38.6	51	46	46	47	47	43		
42" x 30"	8.75	400	3159	-0.21	13	1067 x 762	0.81	2.03	1491	-5.1	29	28	29	20	-	-		
		575	4540	-0.42	23			2.92	2143	-10.6	39	36	37	31	25	20		
		750	5922	-0.72	31			3.81	2795	-18.0	46	42	43	39	36	31		
		925	7304	-1.10	37			4.70	3447	-27.3	51	47	47	46	45	40		
		1100	8686	-1.55	42			5.59	4099	-38.6	56	50	51	51	52	48		
48" x 30"	10.00	400	3629	-0.21	13	1219 x 762	0.93	2.03	1713	-5.1	30	28	29	20	11	-		
		575	5217	-0.42	24			2.92	2462	-10.6	39	36	37	32	26	20		
		750	6805	-0.72	31			3.81	3212	-18.0	46	42	43	40	36	32		
		925	8393	-1.10	37			4.70	3961	-27.3	52	47	48	46	45	41		
		1100	9981	-1.55	42			5.59	4710	-38.6	56	51	51	52	52	48		
42" x 36"	10.50	370	3542	-0.18	11	1067 x 914	0.98	1.88	1672	-4.4	28	27	28	18	-	-		
		563	5385	-0.41	23			2.86	2541	-10.1	39	36	37	31	25	19		
		725	6941	-0.67	30			3.68	3276	-16.8	45	42	42	39	35	30		
		888	8496	-1.01	36			4.51	4010	-25.2	51	46	47	45	44	39		
		1050	10052	-1.41	41			5.33	4744	-35.2	55	50	51	50	50	46		
42" x 38"	11.08	370	3749	-0.18	11	1067 x 965	1.03	1.88	1769	-4.4	22	21	22	13	-	-		
		563	5699	-0.41	23			2.86	2690	-10.1	33	30	31	26	19	14		
		725	7346	-0.67	31			3.68	3467	-16.8	40	36	37	33	30	25		
		888	8992	-1.01	36			4.51	4244	-25.2	45	41	41	40	38	34		
		1050	10639	-1.41	41			5.33	5021	-35.2	49	44	45	45	45	41		
48" x 36"	12.00	360	3960	-0.17	11	1219 x 914	1.11	1.83	1869	-4.1	26	26	27	17	-	-		
		533	5858	-0.36	22			2.71	2765	-9.1	37	34	35	29	22	16		
		705	7755	-0.64	30			3.58	3660	-15.9	44	40	41	37	33	29		
		878	9653	-0.99	36			4.46	4556	-24.6	50	45	46	44	42	38		
		1050	11550	-1.41	41			5.33	5451	-35.2	54	49	50	50	50	46		
44" x 44"	13.44	360	4463	-0.17	11	1118 x 1118	1.25	1.83	2106	-4.1	27	26	27	17	-	-		
		533	6601	-0.36	22			2.71	3115	-9.1	37	34	35	29	22	17		
		705	8739	-0.64	30			3.58	4125	-15.9	44	41	41	38	34	29		
		878	10878	-0.99	37			4.46	5134	-24.6	50	46	46	44	43	38		
		1050	13016	-1.41	42			5.33	6143	-35.2	55	50	50	50	50	46		
46" x 46"	14.69	360	4895	-0.17	12	1168 x 1168	1.37	1.83	2310	-4.1	27	26	27	17	-	-		
		520	7071	-0.35	22			2.64	3337	-8.6	36	34	35	28	21	16		
		680	9246	-0.59	30			3.45	4364	-14.8	43	40	41	37	32	27		
		840	11422	-0.91	36			4.27	5391	-22.5	49	45	46	43	41	37		
		1000	13598	-1.28	41			5.08	6417	-31.9	54	49	49	49	48	44		
48" x 48"	16.00	360	5348	-0.17	12	1219 x 1219	1.49	1.83	2524	-4.1	27	26	27	17	-	-		
		520	7724	-0.35	22			2.64	3646	-8.6	37	34	35	29	22	16		
		680	10101	-0.59	30			3.45	4767	-14.8	44	40	41	37	33	28		
		840	12478	-0.91	36			4.27	5889	-22.5	49	45	46	44	41	37		
		1000	14855	-1.28	41			5.08	7011	-31.9	54	49	50	49	48	44		

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.

ENGINEERING SPECIFICATION & CONFIGURATION

S480

The heavy-duty return grille shall be a Krueger model S480. This grille must have 38° deflection (H and V models) on 1/2" centers or 0° deflection (HV and VZ models) on 3/8" centers made of 14 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 a minimum of 16 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 and operable from the face of the return grille.

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)

S480 - Steel, heavy duty return grille

2. PATTERN: (XX)

H - 38° horizontal deflection
V - 38° vertical deflection
HZ - 0° horizontal deflection
VZ - 0° vertical deflection

3. WIDTH: (XX) *

6" - 96" in 2" increments

4. HEIGHT: (XX) *

4" - 96" in 2" increments

5. FRAME: (XXX)

F22 - Surface mount

6. FASTENING METHOD: (XX)

00 - No screw holes
01 - Standard screw holes
03 - Knurled knob **
08 - 1/4 turn fasteners **

7. DAMPER: (XX)

00 - No damper
01 - Steel OBD

8. ACCESSORIES: (XX)

00 - No accessories
01 - Plaster frame
04 - 1" filter frame ***

9. FINISH: (XX)

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

* S480 maximum single piece unit size is 48"x48".

** Knurled knob and 1/4 turn fastening methods are only available with filter frame accessories.

*** S480 maximum unit size with filter frame is 24"x24".

ENGINEERING SPECIFICATION & CONFIGURATION

S5480

The heavy-duty return grille shall be a Krueger model S5480. This grille must have fixed position 30° deflection (H and V models) or 0° deflection (HZ and VZ models) blades on 1/2" centers. The blades must be held in place by mullions that are securely attached to the frame. The frame of the grille must be constructed of extruded aluminum 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-duty extruded aluminum and operable from the face of the return grille.

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: (XXXXX)

S5480 - Aluminum, heavy duty return grille

2. PATTERN: (XX)

H - 30° horizontal deflection
V - 30° vertical deflection
HZ - 0° horizontal deflection
VZ - 0° vertical deflection

3. WIDTH: (XX)

4" - 72" in 1/4" increments

4. HEIGHT: (XX)

4" - 72" in 1/4" increments

5. FRAME: (XXX)

F22 - Surface mount

6. FASTENING METHOD: (XX)

00 - No screw holes
01 - Standard screw holes

7. DAMPER: (XX)

00 - No damper
25 - Extruded aluminum damper (model S5480OBD)

8. ACCESSORY: (XX) (XXX)

IS - Insect Screen*
DS - Debris Screen*
EQT - Earthquake Tab**

9. FINISH: (XX)

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

* Not available with damper.

** Available up to size 22"x22".

SAMPLE CONFIGURATION: S5480 - HZ - 36.00x36.00 - 01 - 25 - IS - EQT - 81