

# S80 / S580 / S85 / S585 SERIES



Return Grille | Single, Fixed Deflection

## PERFORMANCE DATA | S85, S585 | 0° DEFLECTION (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	2	3	4	5	6	7		
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa								
6" x 6"	0.25	520	100	-0.055	11	152 x 152	0.02	2.64	47	-13.6	33	29	14	-	-	-		
		665	127	-0.089	18			3.38	60	-22.2	40	36	25	16	12	-		
		810	155	-0.132	24			4.11	73	-33.0	45	41	33	22	15	12		
		955	183	-0.184	29			4.85	86	-45.8	50	46	40	28	17	15		
		1100	211	-0.244	33			5.59	99	-60.8	54	49	46	32	19	18		
10" x 6"	0.42	500	169	-0.050	12	254 x 152	0.04	2.54	80	-12.6	35	30	15	-	-	-		
		650	219	-0.085	20			3.30	103	-21.2	42	38	26	18	14	11		
		800	270	-0.129	26			4.06	127	-32.2	47	43	35	25	17	15		
		950	320	-0.182	31			4.83	151	-45.4	52	48	42	30	19	18		
		1100	371	-0.244	35			5.59	175	-60.8	56	52	49	34	22	21		
12" x 6"	0.50	500	205	-0.050	13	305 x 152	0.05	2.54	97	-12.6	36	31	16	11	-	-		
		650	267	-0.085	21			3.30	126	-21.2	43	38	27	19	14	12		
		800	328	-0.129	27			4.06	155	-32.2	48	44	36	25	18	16		
		950	390	-0.182	32			4.83	184	-45.4	53	49	43	31	20	19		
		1100	451	-0.244	36			5.59	213	-60.8	57	53	49	35	22	21		
12" x 8"	0.67	450	255	-0.041	12	305 x 203	0.06	2.29	120	-10.2	34	30	13	-	-	-		
		613	347	-0.076	21			3.11	164	-18.9	42	38	26	19	15	12		
		775	439	-0.121	27			3.94	207	-30.2	49	45	36	26	19	16		
		938	531	-0.177	33			4.76	251	-44.2	54	50	44	32	21	20		
		1100	623	-0.244	38			5.59	294	-60.8	58	54	51	37	24	23		
18" x 6"	0.75	450	283	-0.041	12	457 x 152	0.07	2.29	134	-10.2	34	30	13	-	11	-		
		613	385	-0.076	21			3.11	182	-18.9	43	39	26	19	15	13		
		775	487	-0.121	28			3.94	230	-30.2	49	45	36	26	19	17		
		938	590	-0.177	33			4.76	278	-44.2	55	50	44	32	22	20		
		1100	692	-0.244	38			5.59	326	-60.8	59	55	51	37	24	23		
22" x 6"	0.92	450	349	-0.041	13	559 x 152	0.09	2.29	165	-10.2	35	31	14	-	12	-		
		613	475	-0.076	22			3.11	224	-18.9	44	40	27	20	16	13		
		775	600	-0.121	29			3.94	283	-30.2	50	46	37	27	20	18		
		938	726	-0.177	34			4.76	343	-44.2	55	51	45	33	23	21		
		1100	852	-0.244	39			5.59	402	-60.8	60	56	52	38	25	24		
18" x 10"	1.25	400	443	-0.032	11	457 x 254	0.12	2.03	209	-8.0	34	30	-	-	11	-		
		575	637	-0.067	22			2.92	301	-16.6	44	39	26	19	17	14		
		750	831	-0.114	29			3.81	392	-28.3	51	47	37	28	21	19		
		925	1025	-0.173	35			4.70	484	-43.0	57	52	46	34	24	23		
		1100	1219	-0.244	40			5.59	575	-60.8	61	57	54	40	27	26		
27" x 8"	1.50	400	529	-0.032	12	686 x 203	0.14	2.03	249	-8.0	35	30	11	-	12	-		
		575	760	-0.067	22			2.92	359	-16.6	44	40	27	20	18	15		
		750	991	-0.114	30			3.81	468	-28.3	52	47	38	28	22	19		
		925	1222	-0.173	36			4.70	577	-43.0	57	53	47	35	25	23		
		1100	1454	-0.244	41			5.59	686	-60.8	62	58	55	40	28	26		
24" x 10"	1.67	400	597	-0.032	12	610 x 254	0.15	2.03	282	-8.0	35	31	12	-	13	-		
		575	859	-0.067	23			2.92	405	-16.6	45	41	27	21	18	15		
		750	1120	-0.114	31			3.81	529	-28.3	52	48	39	29	22	20		
		925	1381	-0.173	37			4.70	652	-43.0	58	54	48	35	25	24		
		1100	1643	-0.244	42			5.59	775	-60.8	63	58	55	41	28	27		
16" x 16"	1.78	400	646	-0.032	13	406 x 406	0.17	2.03	305	-8.0	35	31	12	-	13	-		
		575	929	-0.067	23			2.92	438	-16.6	45	41	28	21	19	15		
		750	1211	-0.114	31			3.81	572	-28.3	53	48	39	29	23	20		
		925	1494	-0.173	37			4.70	705	-43.0	58	54	48	36	26	24		
		1100	1777	-0.244	42			5.59	838	-60.8	63	59	55	41	28	27		
18" x 18"	2.25	400	827	-0.032	14	457 x 457	0.21	2.03	390	-8.0	36	32	13	11	14	-		
		550	1137	-0.061	23			2.79	536	-15.2	45	41	27	21	19	16		
		700	1446	-0.099	30			3.56	683	-24.6	52	47	37	28	23	20		
		850	1756	-0.146	36			4.32	829	-36.3	57	53	45	34	26	24		
		1000	2066	-0.202	40			5.08	975	-50.3	61	57	52	39	28	27		

NOTE: See notes on page J1-40.

## PERFORMANCE DATA | S85, S585 | 0° DEFLECTION (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	
30" x 12"	2.50	400	914	-0.32	14	762 x 305	0.23	2.03	431	-8.0	37	33	14	11	15	-	
		550	1257	-0.61	24			2.79	593	-15.2	46	41	27	21	19	16	
		700	1600	-0.99	31			3.56	755	-24.6	52	48	38	29	23	21	
		850	1942	-1.46	36			4.32	917	-36.3	57	53	46	35	26	24	
		1000	2285	-2.02	41			5.08	1078	-50.3	62	58	53	40	28	27	
20" x 20"	2.78	350	901	-0.25	11	508 x 508	0.26	1.78	425	-6.2	34	30	-	-	13	-	
		513	1319	-0.53	22			2.60	622	-13.2	44	40	25	20	19	15	
		675	1737	-0.92	30			3.43	820	-22.9	52	47	36	28	23	20	
		838	2155	-1.42	36			4.25	1017	-35.3	58	53	46	35	26	24	
		1000	2573	-2.02	41			5.08	1214	-50.3	62	58	53	40	29	28	
30" x 16"	3.33	350	1084	-0.25	12	762 x 406	0.31	1.78	512	-6.2	32	27	-	-	11	-	
		513	1588	-0.53	23			2.60	749	-13.2	42	38	23	17	13		
		675	2091	-0.92	31			3.43	987	-22.9	50	45	34	26	21	18	
		838	2594	-1.42	37			4.25	1224	-35.3	55	51	44	33	24	22	
		1000	3098	-2.02	42			5.08	1462	-50.3	60	56	51	38	27	25	
36" x 14"	3.50	350	1135	-0.25	12	914 x 356	0.33	1.78	536	-6.2	35	31	-	-	14	-	
		513	1662	-0.53	23			2.60	785	-13.2	45	41	26	21	20	16	
		675	2189	-0.92	31			3.43	1033	-22.9	53	48	37	29	24	21	
		838	2716	-1.42	37			4.25	1282	-35.3	59	54	47	36	27	25	
		1000	3243	-2.02	42			5.08	1531	-50.3	63	59	54	41	30	29	
30" x 18"	3.75	350	1226	-0.25	12	762 x 457	0.35	1.78	579	-6.2	35	31	-	-	14	-	
		513	1796	-0.53	23			2.60	848	-13.2	46	41	26	21	20	17	
		675	2365	-0.92	31			3.43	1116	-22.9	53	49	38	29	24	22	
		838	2935	-1.42	38			4.25	1385	-35.3	59	55	47	36	28	26	
		1000	3504	-2.02	43			5.08	1654	-50.3	64	60	55	42	30	29	
36" x 18"	4.50	350	1478	-0.25	13	914 x 457	0.42	1.78	698	-6.2	36	32	-	-	15	11	
		488	2059	-0.48	23			2.48	972	-11.9	45	41	25	20	20	17	
		625	2639	-0.79	30			3.18	1246	-19.6	52	48	35	28	24	21	
		763	3220	-1.17	36			3.87	1520	-29.2	57	53	44	34	27	25	
		900	3800	-1.64	40			4.57	1794	-40.7	62	57	51	39	30	28	
42" x 18"	5.25	350	1729	-0.25	14	1067 x 457	0.49	1.78	816	-6.2	31	27	-	-	11	-	
		488	2409	-0.48	23			2.48	1137	-11.9	40	36	20	16	16	12	
		625	3088	-0.79	31			3.18	1458	-19.6	47	43	31	23	19	17	
		763	3768	-1.17	36			3.87	1778	-29.2	53	48	39	30	23	20	
		900	4447	-1.64	41			4.57	2099	-40.7	57	53	46	35	25	23	
30" x 28"	5.83	350	1937	-0.25	14	762 x 711	0.54	1.78	914	-6.2	37	33	12	11	16	12	
		488	2698	-0.48	24			2.48	1273	-11.9	46	42	26	21	21	18	
		625	3459	-0.79	31			3.18	1633	-19.6	53	49	37	29	25	22	
		763	4221	-1.17	37			3.87	1992	-29.2	58	54	45	35	28	26	
		900	4982	-1.64	42			4.57	2351	-40.7	63	59	52	40	31	29	
30" x 30"	6.25	350	2079	-0.25	15	762 x 762	0.58	1.78	981	-6.2	37	33	12	11	17	12	
		488	2896	-0.48	24			2.48	1367	-11.9	46	42	26	22	22	18	
		625	3713	-0.79	31			3.18	1753	-19.6	53	49	37	29	25	23	
		763	4530	-1.17	37			3.87	2138	-29.2	59	54	45	36	29	26	
		900	5347	-1.64	42			4.57	2524	-40.7	63	59	52	41	31	29	
46" x 22"	7.03	300	2003	-0.18	11	1168 x 559	0.65	1.52	945	-4.5	34	29	-	-	15	-	
		450	3005	-0.41	22			2.29	1418	-10.2	45	41	23	20	21	17	
		600	4007	-0.73	31			3.05	1891	-18.1	53	48	36	29	25	22	
		750	5008	-1.14	37			3.81	2364	-28.3	59	54	45	36	29	26	
		900	6010	-1.64	42			4.57	2836	-40.7	64	59	53	41	32	30	
36" x 30"	7.50	300	2148	-0.18	11	914 x 762	0.70	1.52	1014	-4.5	34	30	-	-	15	-	
		438	3133	-0.39	22			2.22	1478	-9.6	44	40	22	19	21	17	
		575	4117	-0.67	30			2.92	1943	-16.6	52	48	34	28	25	22	
		713	5102	-1.02	36			3.62	2408	-25.5	58	53	43	34	28	26	
		850	6086	-1.46	41			4.32	2872	-36.3	62	58	51	40	31	29	

NOTE: See notes on page J1-40.

# S80 / S580 / S85 / S585 SERIES



Return Grille | Single, Fixed Deflection

## PERFORMANCE DATA | S85, S585 | 0° DEFLECTION (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	2	3	4	5	6	7		
in	ft <sup>2</sup>	FPM	CFM	"WG	mm		m <sup>2</sup>	m/s	L/s	Pa								
34" x 34"	8.03	300	2303	-0.18	11	864 x 864	0.75	1.52	1087	-4.5	27	23	-	-	-	-		
		425	3263	-0.36	21			2.16	1540	-9.1	37	33	15	12	14	-		
		550	4223	-0.61	29			2.79	1993	-15.2	44	40	26	20	18	15		
		675	5182	-0.92	35			3.43	2446	-22.9	50	45	34	26	21	18		
		800	6142	-1.29	40			4.06	2899	-32.2	54	50	42	31	24	21		
42" x 30"	8.75	300	2514	-0.18	12	1067 x 762	0.81	1.52	1186	-4.5	35	30	-	-	16	11		
		425	3561	-0.36	22			2.16	1681	-9.1	44	40	22	19	21	17		
		550	4608	-0.61	29			2.79	2175	-15.2	51	47	33	27	25	22		
		675	5656	-0.92	35			3.43	2669	-22.9	57	53	42	33	28	26		
		800	6703	-1.29	40			4.06	3164	-32.2	61	57	49	38	31	29		
48" x 30"	10.00	300	2879	-0.18	12	1219 x 762	0.93	1.52	1359	-4.5	35	31	-	-	16	11		
		425	4079	-0.36	22			2.16	1925	-9.1	45	41	22	20	22	18		
		550	5279	-0.61	30			2.79	2491	-15.2	52	48	33	27	26	22		
		675	6478	-0.92	36			3.43	3057	-22.9	57	53	42	34	29	26		
		800	7678	-1.29	41			4.06	3624	-32.2	62	58	49	39	31	29		
42" x 36"	10.50	300	3029	-0.18	12	1067 x 914	0.98	1.52	1430	-4.5	36	31	-	-	17	11		
		425	4292	-0.36	23			2.16	2025	-9.1	45	41	23	20	22	18		
		550	5554	-0.61	30			2.79	2621	-15.2	52	48	34	28	26	23		
		675	6816	-0.92	36			3.43	3217	-22.9	58	53	42	34	29	26		
		800	8078	-1.29	41			4.06	3812	-32.2	62	58	50	39	32	29		
42" x 38"	11.08	300	3201	-0.18	13	1067 x 965	1.03	1.52	1511	-4.5	27	23	-	-	-	-		
		425	4535	-0.36	23			2.16	2140	-9.1	37	32	14	11	14	-		
		550	5869	-0.61	30			2.79	2770	-15.2	44	40	25	19	18	14		
		675	7203	-0.92	36			3.43	3399	-22.9	49	45	34	26	21	18		
		800	8536	-1.29	41			4.06	4029	-32.2	54	50	41	31	23	21		
48" x 36"	12.00	300	3470	-0.18	13	1219 x 914	1.11	1.52	1638	-4.5	36	32	-	-	17	12		
		425	4916	-0.36	23			2.16	2320	-9.1	46	41	23	20	22	18		
		550	6362	-0.61	31			2.79	3002	-15.2	53	48	34	28	26	23		
		675	7807	-0.92	36			3.43	3685	-22.9	58	54	43	35	30	27		
		800	9253	-1.29	41			4.06	4367	-32.2	63	59	50	40	32	30		
44" x 44"	13.44	270	3507	-0.15	11	1118 x 1118	1.25	1.37	1655	-3.7	34	30	-	-	16	11		
		403	5228	-0.33	22			2.04	2468	-8.1	45	40	21	19	22	18		
		535	6950	-0.58	30			2.72	3280	-14.4	52	48	34	28	26	23		
		668	8671	-0.90	37			3.39	4092	-22.4	58	54	43	35	30	27		
		800	10392	-1.29	42			4.06	4904	-32.2	63	59	51	40	33	31		
46" x 46"	14.69	270	3839	-0.15	11	1168 x 1168	1.37	1.37	1812	-3.7	34	30	-	-	16	11		
		403	5723	-0.33	22			2.04	2701	-8.1	45	41	22	20	23	18		
		535	7607	-0.58	31			2.72	3590	-14.4	53	49	34	28	27	24		
		668	9491	-0.90	37			3.39	4479	-22.4	59	55	43	35	30	28		
		800	11375	-1.29	42			4.06	5369	-32.2	64	60	51	41	33	31		
48" x 48"	16.00	270	4186	-0.15	11	1219 x 1219	1.49	1.37	1976	-3.7	34	30	-	-	17	11		
		403	6240	-0.33	23			2.04	2945	-8.1	45	41	22	20	23	19		
		535	8295	-0.58	31			2.72	3915	-14.4	53	49	34	29	27	24		
		668	10349	-0.90	37			3.39	4884	-22.4	59	55	44	36	31	28		
		800	12403	-1.29	43			4.06	5854	-32.2	64	60	52	41	33	31		

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.