

S80P / S580P

Return Grille | Perforated Face



INTRODUCTION

The S80P/S580P return grilles are designed to fit common commercial and residential applications where the architect requires a return grille without bars on the face. The S80P/S580P offers 3/16" diameter holes on 1/4" staggered centers and 1 1/4" flange. The perforated pattern matches the 6000 series supply diffusers, making them an excellent choice for surface mounted returns when the 6000 series is used as the supply diffusers.

MODELS

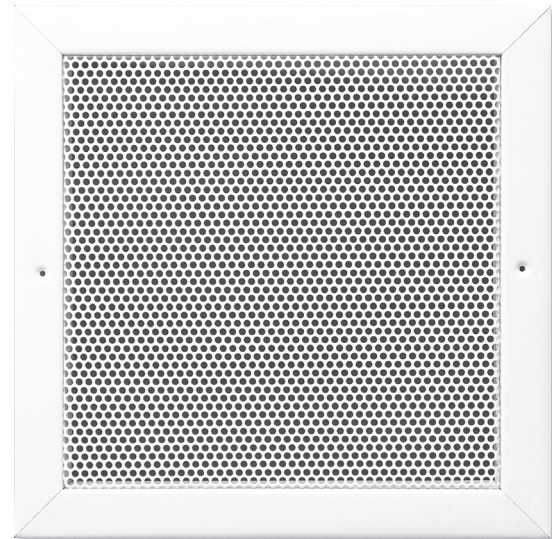
S80P - Steel, perforated return grille
S580P - Aluminum, perforated return grille

FEATURES

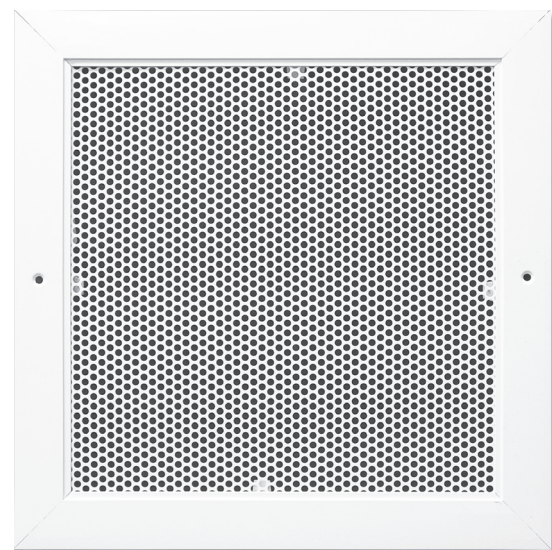
- 3/16" Diameter holes on 1/4" staggered centers
- 51% Free area
- Standard finish is #44 British White
- Optional finishes available

ACCESSORIES

- Steel opposed blade damper (model OBD)
- Steel painted opposed blade damper (model POBD)
- Aluminum opposed blade damper (model 5OBD)
- Square to Round adapter (model SRAC325)
- Steel plaster frame (model 8PF)
- Aluminum plaster frame (model 58PF)
- 1" or 2" filter frame - minimum size is 8"x8" and maximum size is 48"x36" (model 5FF)

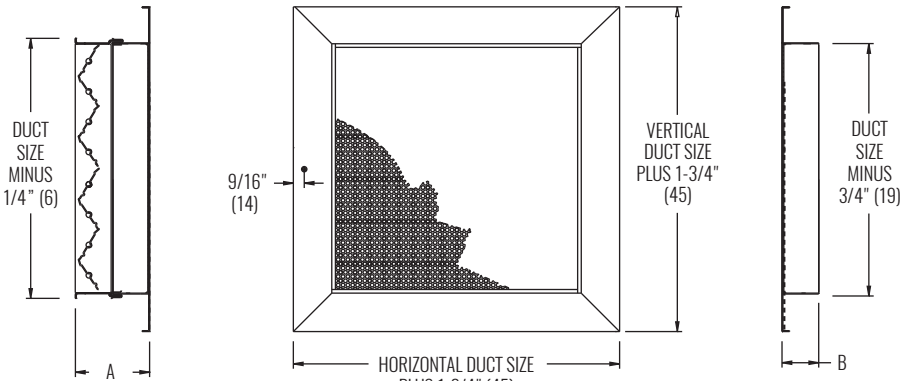


S80P



S580P

DIMENSIONAL DATA



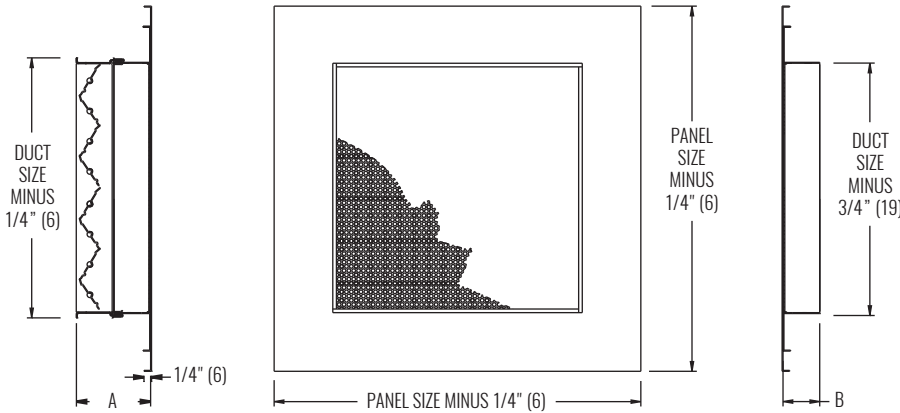
CROSS SECTION - FRAME 22

FACE VIEW - FRAME 22

SIDE VIEW - FRAME 22

MODEL	A	B
S80P	2 3/4" (70)	1 1/4" (32)
S580P	2 3/16" (56)	1" (25)

NOTE: Dimensions in parentheses are mm.



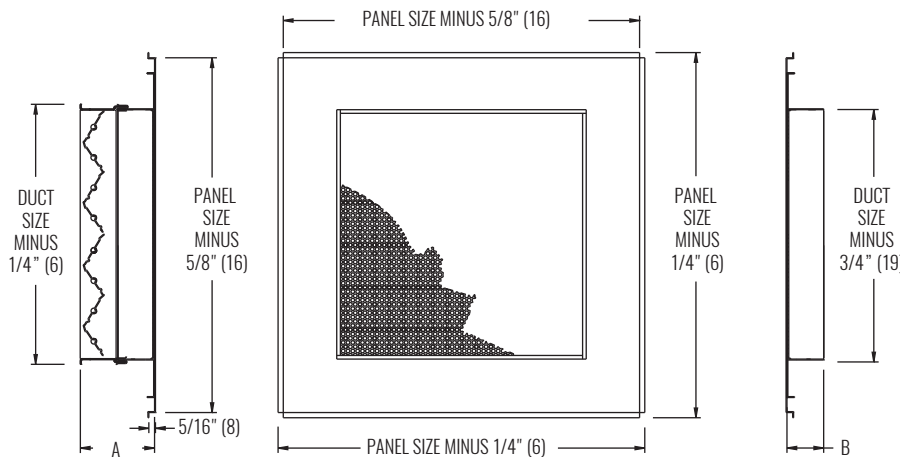
CROSS SECTION - FRAME 23

FACE & SIDE VIEWS - FRAME 23

SIDE VIEW - FRAME 23

MODEL	A	B
S80P	2 3/4" (70)	1 1/4" (32)
S580P	2 1/4" (57)	1" (25)

NOTE: Dimensions in parentheses are mm.



CROSS SECTION - FRAME 98

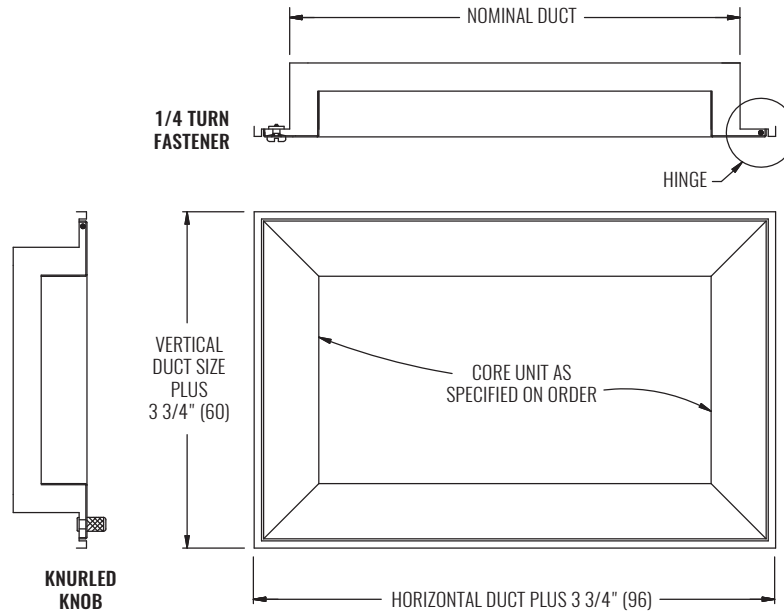
FACE & SIDE VIEWS - FRAME 98

SIDE VIEW - FRAME 98

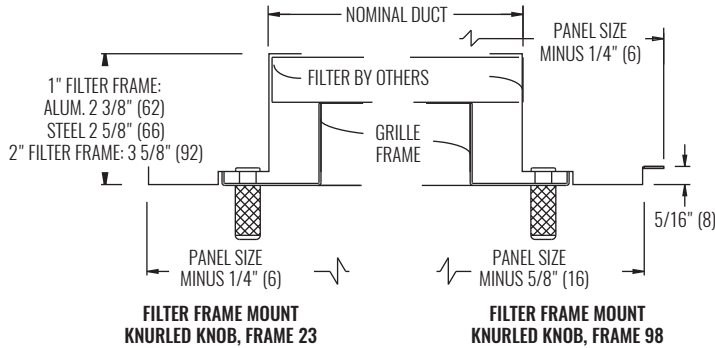
MODEL	A	B
S80P	2 3/4" (70)	1 1/4" (32)
S580P	2 1/4" (57)	1" (25)

NOTE: Dimensions in parentheses are mm.

DIMENSIONAL DATA | FRAMES

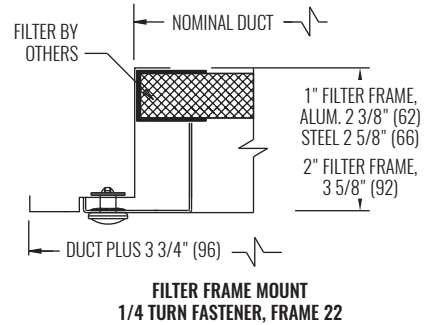


**FILTER FRAME MOUNT
FACE VIEW & SIDE VIEWS - FRAME 22**



**FILTER FRAME MOUNT
KNURLED KNOB, FRAME 23**

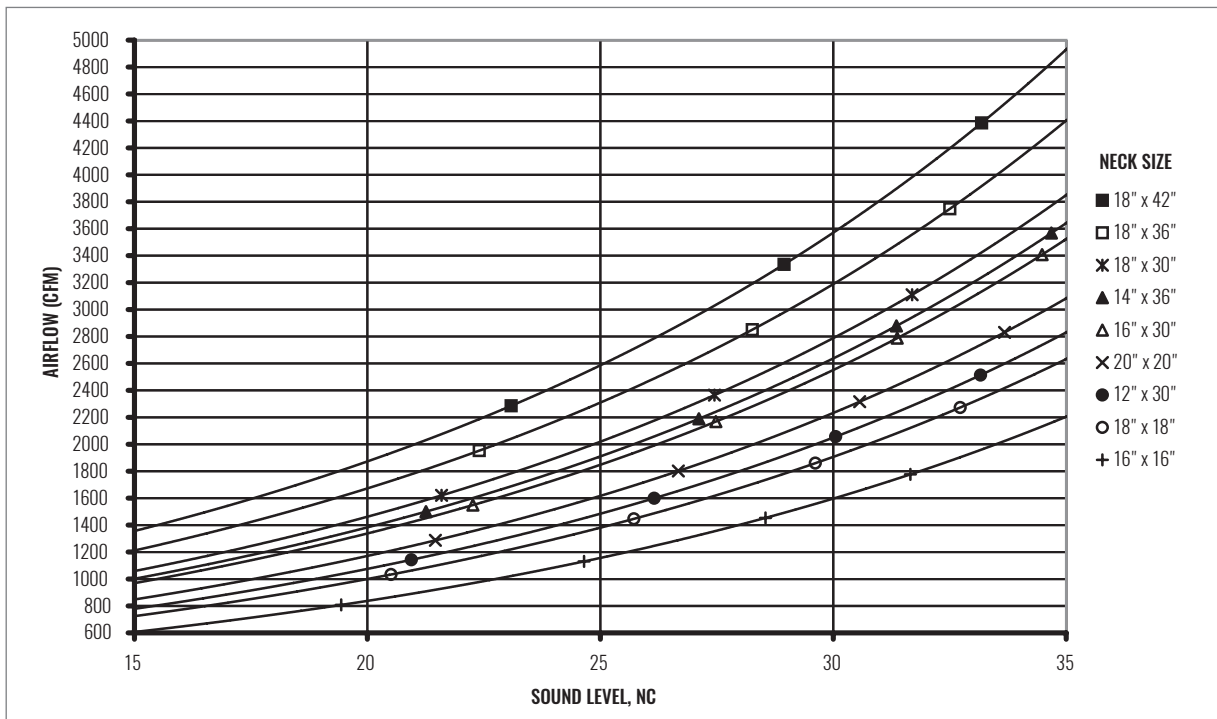
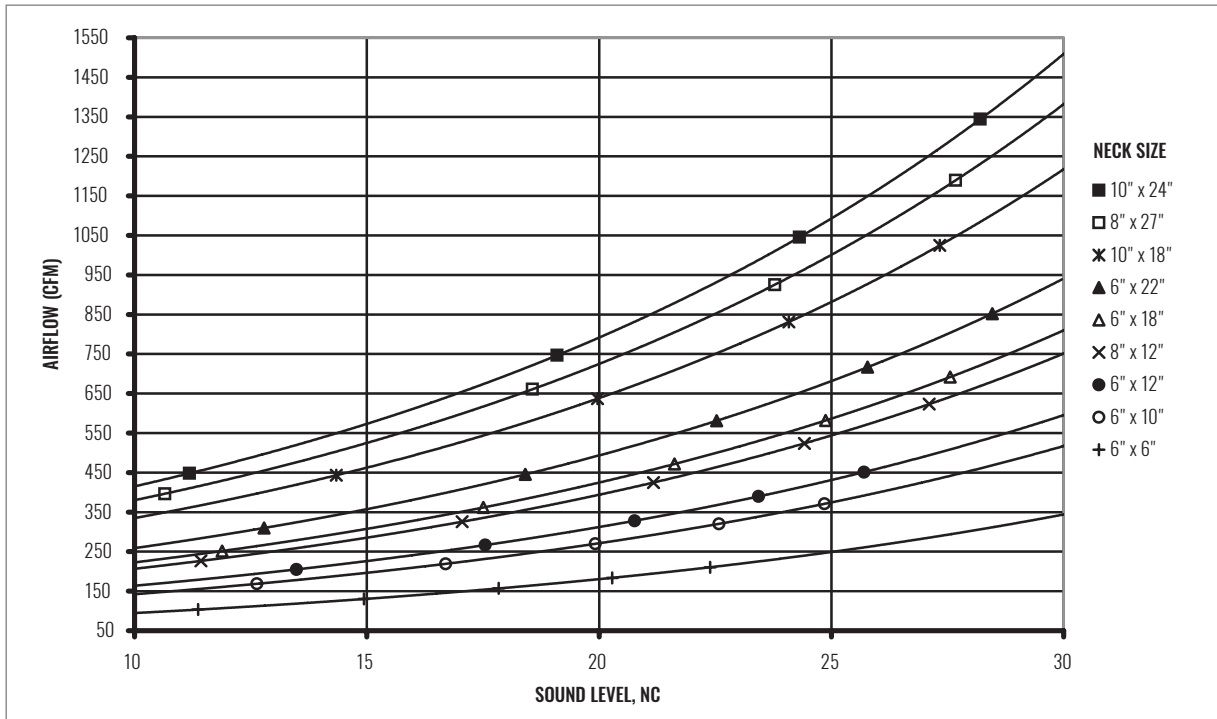
**FILTER FRAME MOUNT
KNURLED KNOB, FRAME 98**



**FILTER FRAME MOUNT
1/4 TURN FASTENER, FRAME 22**

NOTE: Dimensions in parentheses are mm.

SOUND CHARTS | S80P, S580P (NO DAMPER)



GRILLES | RETURN

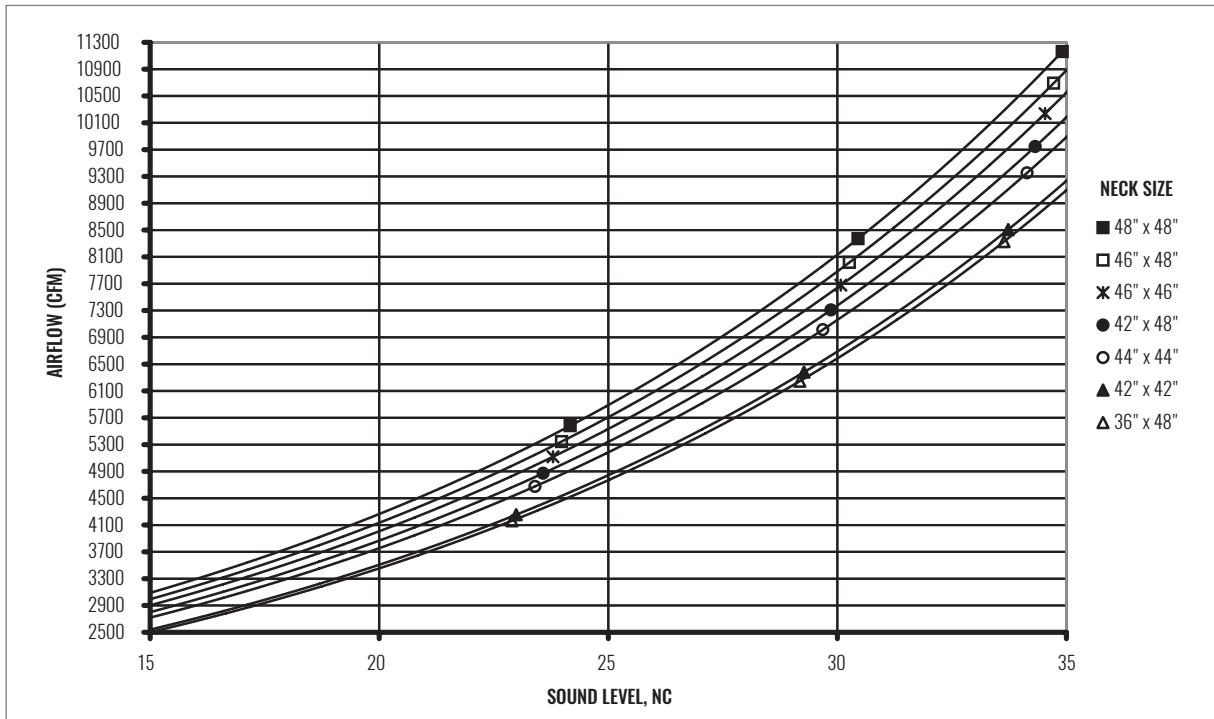
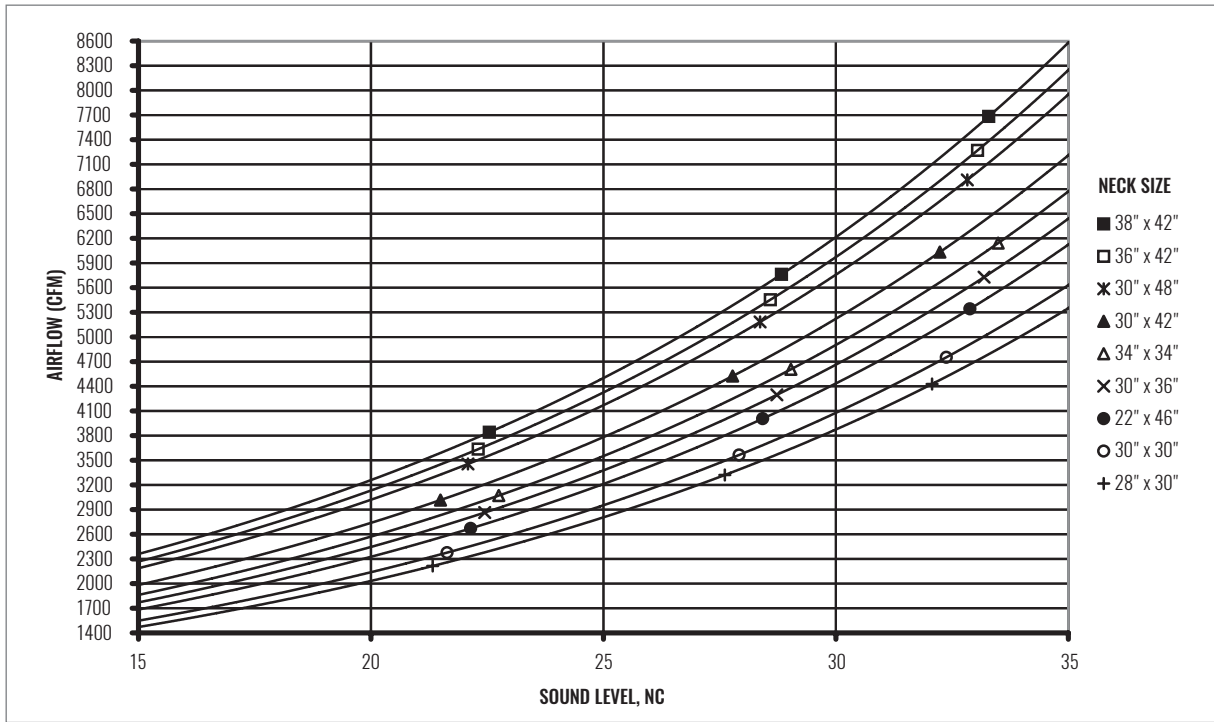
S80P / S580P

Return Grille | Perforated Face



SOUND CHARTS | S80P, S580P (NO DAMPER)

GRILLES | RETURN



PERFORMANCE DATA | S80P, S580P (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 ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa	2	3	4	5	6	7	
6" x 6"	0.25	540	103	-0.75	11	152 x 152	0.02	2.74	49	-18.6	36	29	24	22	22	19	
		680	130	-1.18	15			3.45	61	-29.4	38	31	27	25	26	24	
		820	157	-1.72	18			4.17	74	-42.8	38	32	29	27	29	28	
		960	184	-2.36	20			4.88	87	-58.7	39	33	30	29	31	31	
		1100	211	-3.09	22			5.59	99	-77.0	40	34	32	31	33	33	
10" x 6"	0.42	500	169	-0.64	13	254 x 152	0.04	2.54	80	-15.9	39	31	26	23	23	20	
		650	219	-1.08	17			3.30	103	-26.9	40	33	29	27	27	26	
		800	270	-1.64	20			4.06	127	-40.7	41	34	31	29	31	30	
		950	320	-2.31	23			4.83	151	-57.4	42	35	33	31	34	33	
		1100	371	-3.09	25			5.59	175	-77.0	42	36	34	33	36	36	
12" x 6"	0.50	500	205	-0.64	13	305 x 152	0.05	2.54	97	-15.9	40	32	27	24	24	21	
		650	267	-1.08	18			3.30	126	-26.9	41	34	30	28	28	27	
		800	328	-1.64	21			4.06	155	-40.7	42	35	32	30	32	31	
		950	390	-2.31	23			4.83	184	-57.4	43	36	34	32	35	34	
		1100	451	-3.09	26			5.59	213	-77.0	43	37	35	34	37	37	
12" x 8"	0.67	400	227	-0.41	11	305 x 203	0.06	2.03	107	-10.2	40	32	26	23	22	19	
		575	326	-0.85	17			2.92	154	-21.0	42	35	30	27	28	26	
		750	425	-1.44	21			3.81	200	-35.8	43	36	33	31	32	31	
		925	524	-2.19	24			4.70	247	-54.5	44	38	35	34	36	35	
		1100	623	-3.09	27			5.59	294	-77.0	45	39	37	36	38	38	
18" x 6"	0.75	400	252	-0.41	12	457 x 152	0.07	2.03	119	-10.2	41	33	27	23	23	19	
		575	362	-0.85	18			2.92	171	-21.0	42	35	30	28	28	26	
		750	472	-1.44	22			3.81	223	-35.8	43	37	33	31	33	31	
		925	582	-2.19	25			4.70	275	-54.5	44	38	35	34	36	36	
		1100	692	-3.09	28			5.59	326	-77.0	45	39	37	36	39	39	
22" x 6"	0.92	400	310	-0.41	13	559 x 152	0.09	2.03	146	-10.2	41	34	28	24	23	20	
		575	445	-0.85	18			2.92	210	-21.0	43	36	31	29	29	27	
		750	581	-1.44	23			3.81	274	-35.8	44	38	34	32	34	32	
		925	717	-2.19	26			4.70	338	-54.5	45	39	36	35	37	37	
		1100	852	-3.09	28			5.59	402	-77.0	46	40	38	37	40	40	
18" x 10"	1.25	400	443	-0.41	14	457 x 254	0.12	2.03	209	-10.2	43	36	29	26	25	22	
		575	637	-0.85	20			2.92	301	-21.0	45	38	33	31	31	29	
		750	831	-1.44	24			3.81	392	-35.8	46	39	36	34	35	34	
		925	1025	-2.19	27			4.70	484	-54.5	47	41	38	37	39	38	
		1100	1219	-3.09	30			5.59	575	-77.0	48	42	40	39	42	42	
27" x 8"	1.50	300	396	-0.23	11	686 x 203	0.14	1.52	187	-5.7	43	35	27	23	21	17	
		500	661	-0.64	19			2.54	312	-15.9	45	38	32	30	30	27	
		700	925	-1.25	24			3.56	437	-31.2	46	40	36	34	35	34	
		900	1189	-2.07	28			4.57	561	-51.6	48	41	39	37	39	38	
		1100	1454	-3.09	31			5.59	686	-77.0	49	42	41	40	42	42	
24" x 10"	1.67	300	448	-0.23	11	610 x 254	0.15	1.52	211	-5.7	43	35	28	24	22	17	
		500	747	-0.64	19			2.54	352	-15.9	45	38	33	30	30	27	
		700	1045	-1.25	24			3.56	493	-31.2	47	40	37	35	36	34	
		900	1344	-2.07	28			4.57	634	-51.6	48	42	39	38	40	39	
		1100	1643	-3.09	31			5.59	775	-77.0	49	43	41	40	43	43	
16" x 16"	1.78	300	485	-0.23	12	406 x 406	0.17	1.52	229	-5.7	43	36	28	24	22	18	
		500	808	-0.64	19			2.54	381	-15.9	46	39	33	31	31	28	
		700	1131	-1.25	25			3.56	534	-31.2	47	41	37	35	36	34	
		900	1454	-2.07	29			4.57	686	-51.6	49	42	40	38	40	39	
		1100	1777	-3.09	32			5.59	838	-77.0	49	43	42	41	43	43	
18" x 18"	2.25	300	620	-0.23	13	457 x 457	0.21	1.52	293	-5.7	45	37	29	25	23	19	
		500	1033	-0.64	21			2.54	488	-15.9	47	40	35	32	32	29	
		700	1446	-1.25	26			3.56	683	-31.2	49	42	38	36	37	36	
		900	1860	-2.07	30			4.57	878	-51.6	50	43	41	39	41	41	
		1100	2273	-3.09	33			5.59	1073	-77.0	51	44	43	42	44	45	

NOTE: See notes on page J1-49.

S80P / S580P

Return Grille | Perforated Face



PERFORMANCE DATA | S80P, S580P (NO DAMPER)

NOM DUCT		IP DATA			NC	METRIC DATA					OCTAVE BAND, dB						
in	ft ²	NECK VEL FPM	AIRFLOW CFM	Ps "WG		NOM DUCT mm	DUCT AREA m ²	NECK VEL m/s	AIRFLOW L/s	Ps Pa	2	3	4	5	6	7	
30" x 12"	2.50	300	686	-0.23	13	762 x 305	0.23	1.52	324	-5.7	45	37	30	26	24	19	
		500	1143	-0.64	21			2.54	539	-15.9	47	40	35	32	32	30	
		700	1600	-1.25	26			3.56	755	-31.2	49	42	39	36	38	36	
		900	2057	-2.07	30			4.57	971	-51.6	50	44	41	40	42	41	
		1100	2514	-3.09	33			5.59	1186	-77.0	51	45	43	42	45	45	
20" x 20"	2.78	300	772	-0.23	14	508 x 508	0.26	1.52	364	-5.7	46	38	30	26	24	20	
		500	1287	-0.64	21			2.54	607	-15.9	48	41	36	33	33	30	
		700	1801	-1.25	27			3.56	850	-31.2	49	43	39	37	38	37	
		900	2316	-2.07	31			4.57	1093	-51.6	51	44	42	40	42	42	
		1100	2831	-3.09	34			5.59	1336	-77.0	52	45	44	43	46	46	
30" x 16"	3.33	300	929	-0.23	14	762 x 406	0.31	1.52	439	-5.7	43	35	28	24	22	18	
		500	1549	-0.64	22			2.54	731	-15.9	46	39	33	31	30	28	
		700	2168	-1.25	27			3.56	1023	-31.2	47	41	37	35	36	34	
		900	2788	-2.07	31			4.57	1316	-51.6	48	42	39	38	40	39	
		1100	3407	-3.09	34			5.59	1608	-77.0	49	43	42	41	43	43	
36" x 14"	3.50	250	811	-0.16	12	914 x 356	0.33	1.27	383	-4.0	46	38	29	25	23	17	
		463	1500	-0.55	21			2.35	708	-13.6	49	41	36	33	33	30	
		675	2189	-1.16	27			3.43	1033	-29.0	50	44	40	38	39	37	
		888	2879	-2.01	31			4.51	1359	-50.1	52	45	43	41	43	42	
		1100	3568	-3.09	35			5.59	1684	-77.0	53	47	45	44	47	47	
30" x 18"	3.75	250	876	-0.16	12	762 x 457	0.35	1.27	413	-4.0	46	38	30	25	23	18	
		463	1621	-0.55	22			2.35	765	-13.6	49	42	36	33	33	30	
		675	2365	-1.16	27			3.43	1116	-29.0	51	44	40	38	39	37	
		888	3110	-2.01	32			4.51	1468	-50.1	52	46	43	41	43	43	
		1100	3854	-3.09	35			5.59	1819	-77.0	53	47	45	44	47	47	
36" x 18"	4.50	250	1056	-0.16	13	914 x 457	0.42	1.27	498	-4.0	47	39	31	26	24	19	
		463	1953	-0.55	22			2.35	922	-13.6	50	43	37	34	34	31	
		675	2850	-1.16	28			3.43	1345	-29.0	52	45	41	39	40	38	
		888	3748	-2.01	33			4.51	1769	-50.1	53	46	44	42	44	44	
		1100	4645	-3.09	36			5.59	2192	-77.0	54	48	46	45	48	48	
42" x 18"	5.25	250	1235	-0.16	14	1067 x 457	0.49	1.27	583	-4.0	42	34	26	21	19	14	
		463	2285	-0.55	23			2.35	1079	-13.6	45	38	32	29	29	26	
		675	3335	-1.16	29			3.43	1574	-29.0	47	40	36	34	35	33	
		888	4385	-2.01	33			4.51	2070	-50.1	48	42	39	38	39	39	
		1100	5436	-3.09	37			5.59	2565	-77.0	49	43	41	40	43	43	
30" x 28"	5.83	200	1107	-0.10	11	762 x 711	0.54	1.02	522	-2.5	47	39	29	25	21	16	
		400	2214	-0.41	21			2.03	1045	-10.2	50	43	37	33	33	29	
		600	3321	-0.92	28			3.05	1567	-22.9	52	45	41	39	39	37	
		800	4428	-1.64	32			4.06	2090	-40.7	54	47	44	42	44	43	
		1000	5535	-2.56	36			5.08	2612	-63.6	55	48	46	45	48	47	
30" x 30"	6.25	200	1188	-0.10	11	762 x 762	0.58	1.02	561	-2.5	48	39	30	25	22	16	
		400	2377	-0.41	22			2.03	1122	-10.2	51	43	37	34	33	30	
		600	3565	-0.92	28			3.05	1682	-22.9	53	46	41	39	40	38	
		800	4753	-1.64	32			4.06	2243	-40.7	54	47	44	43	44	43	
		1000	5941	-2.56	36			5.08	2804	-63.6	55	49	47	45	48	48	
46" x 22"	7.03	200	1336	-0.10	11	1168 x 559	0.65	1.02	630	-2.5	48	40	30	26	22	17	
		400	2671	-0.41	22			2.03	1261	-10.2	51	44	38	34	34	30	
		600	4007	-0.92	28			3.05	1891	-22.9	53	46	42	39	40	38	
		800	5342	-1.64	33			4.06	2521	-40.7	54	48	45	43	45	44	
		1000	6678	-2.56	36			5.08	3151	-63.6	55	49	47	46	48	48	
36" x 30"	7.50	200	1432	-0.10	12	914 x 762	0.70	1.02	676	-2.5	48	40	31	26	23	17	
		400	2864	-0.41	22			2.03	1352	-10.2	52	44	38	35	34	31	
		600	4296	-0.92	29			3.05	2028	-22.9	53	46	42	40	40	38	
		800	5728	-1.64	33			4.06	2703	-40.7	55	48	45	43	45	44	
		1000	7160	-2.56	37			5.08	3379	-63.6	56	50	48	46	49	49	

NOTE: See notes on page J1-49.

PERFORMANCE DATA | S80P, S580P (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 ²	FPM	CFM	"WG		mm	m ²	m/s	L/s	Pa							
34" x 34"	8.03	200	1536	-0.10	12	864 x 864	0.75	1.02	725	-2.5	42	33	24	19	16	-	
		400	3071	-0.41	23			2.03	1449	-10.2	45	37	31	28	27	23	
		600	4607	-0.92	29			3.05	2174	-22.9	47	40	35	33	33	31	
		800	6142	-1.64	33			4.06	2899	-40.7	48	41	38	36	38	37	
		1000	7678	-2.56	37			5.08	3623	-63.6	49	43	41	39	42	41	
42" x 30"	8.75	180	1508	-0.08	11	1067 x 762	0.81	0.91	712	-2.1	49	40	30	25	22	16	
		360	3016	-0.33	21			1.83	1424	-8.2	52	44	38	34	33	29	
		540	4525	-0.75	28			2.74	2135	-18.6	54	47	42	39	40	37	
		720	6033	-1.33	32			3.66	2847	-33.0	55	48	45	43	44	43	
48" x 30"	10.00	180	1728	-0.08	11	1219 x 762	0.93	0.91	815	-2.1	49	41	31	26	22	16	
		360	3455	-0.33	22			1.83	1631	-8.2	52	45	38	35	34	30	
		540	5183	-0.75	28			2.74	2446	-18.6	54	47	42	40	40	38	
		720	6910	-1.33	33			3.66	3261	-33.0	56	49	45	44	45	43	
		900	8638	-2.07	36			4.57	4077	-51.6	57	50	48	46	48	48	
42" x 36"	10.50	180	1818	-0.08	12	1067 x 914	0.98	0.91	858	-2.1	49	41	31	26	23	16	
		360	3635	-0.33	22			1.83	1716	-8.2	53	45	38	35	34	30	
		540	5453	-0.75	29			2.74	2573	-18.6	55	47	43	40	40	38	
		720	7270	-1.33	33			3.66	3431	-33.0	56	49	46	44	45	44	
42" x 38"	11.08	180	1921	-0.08	12	1067 x 965	1.03	0.91	906	-2.1	41	32	22	17	14	-	
		360	3841	-0.33	23			1.83	1813	-8.2	44	36	30	26	25	21	
		540	5762	-0.75	29			2.74	2719	-18.6	46	39	34	31	31	29	
		720	7683	-1.33	33			3.66	3626	-33.0	47	40	37	35	36	35	
		900	9604	-2.07	37			4.57	4532	-51.6	48	42	39	38	40	39	
48" x 36"	12.00	180	2082	-0.08	12	1219 x 914	1.11	0.91	983	-2.1	50	41	32	27	23	17	
		360	4164	-0.33	23			1.83	1965	-8.2	53	46	39	36	34	31	
		540	6246	-0.75	29			2.74	2948	-18.6	55	48	43	41	41	39	
		720	8328	-1.33	34			3.66	3930	-33.0	56	50	46	44	46	44	
44" x 44"	13.44	180	2338	-0.08	13	1118 x 1118	1.25	0.91	1104	-2.1	51	42	32	27	24	18	
		360	4676	-0.33	23			1.83	2207	-8.2	54	46	40	36	35	31	
		540	7015	-0.75	30			2.74	3311	-18.6	56	49	44	41	42	39	
		720	9353	-1.33	34			3.66	4414	-33.0	57	50	47	45	46	45	
		900	11691	-2.07	38			4.57	5518	-51.6	58	52	49	48	50	49	
46" x 46"	14.69	180	2559	-0.08	13	1168 x 1168	1.37	0.91	1208	-2.1	51	42	33	28	24	18	
		360	5119	-0.33	24			1.83	2416	-8.2	54	47	40	37	35	32	
		540	7678	-0.75	30			2.74	3624	-18.6	56	49	44	42	42	40	
		720	10238	-1.33	35			3.66	4832	-33.0	57	51	47	45	47	45	
48" x 48"	16.00	180	2791	-0.08	13	1219 x 1219	1.49	0.91	1317	-2.1	51	43	33	28	25	18	
		360	5581	-0.33	24			1.83	2634	-8.2	55	47	40	37	36	32	
		540	8372	-0.75	30			2.74	3951	-18.6	56	49	45	42	42	40	
		720	11163	-1.33	35			3.66	5268	-33.0	58	51	48	46	47	46	
		900	13954	-2.07	38			4.57	6585	-51.6	59	52	50	49	51	50	

NOTES: S580P maximum unit size is 48"x36". 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. S580P maximum unit size is 48"x36".

GRILLES | RETURN

S80P / S580P

Return Grille | Perforated Face



ENGINEERING SPECIFICATION & CONFIGURATION

S80P, S580P

The return grille shall be a Krueger model S80P (steel) or S580P (aluminum). This grille must have 3/16" holes on 1/4" staggered centers resulting in a 51% free area face made of steel (S80P) or aluminum (S580P). The frame of the grille must be constructed of 22 gage steel (S80P) or extruded aluminum with nominal thickness 0.040 – 0.050" (S580P) 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.

Optional filter frame shall be available enabling the return grille to accept standard 1" or 2" filters.

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)

S80P - Steel perforated return
S580P - Aluminum perforated return

2. WIDTH: (XX) *

6" - 240" in 1/4" increments

3. HEIGHT: (XX) *

4" - 240" in 1/4" increments

4. FRAME: (XXX)

F22 - Surface mount
F23 - Lay-in T-bar
F98 - Narrow-T

5. PANEL: (XX)x(XX)

NONE
24"x12"
24"x24"
48"x24"

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 opposed blade damper (model OBD)
13 - Painted opposed blade damper (model POBD)
15 - Aluminum opposed blade damper (model 5OBD)

8. ACCESSORIES: (XX) (XX)

00 - No accessories
01 - Plaster frame (model 8PF)
04 - 1" filter **
05 - 2" filter **

9. FINISH: (XX)

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

* Maximum Grille size is 240"x96" or 96"x240".

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

SAMPLE CONFIGURATION: S80P - 40x20 - F23 - 24x48 - 00 - 00 - 00 - 00 - 44