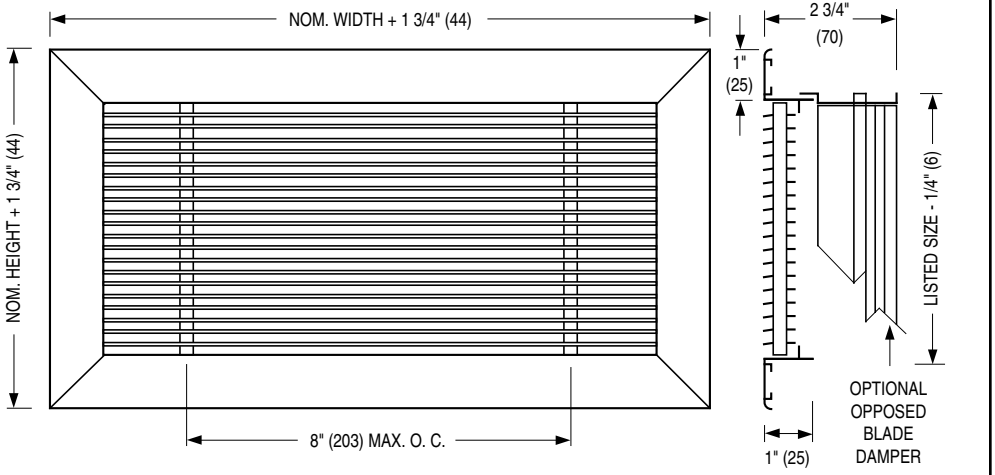
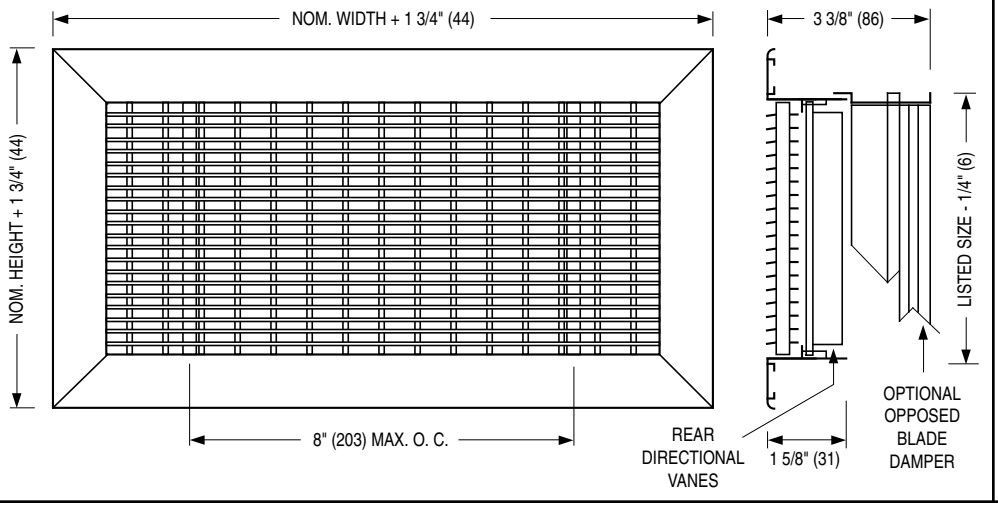
Nailor® Industries Inc.

REVERSIBLE CORE GRILLES & REGISTERS

SUPPLY OR RETURN • FIXED NARROW BLADES
EXTRUDED ALUMINUM
MODELS: 51RC(-O) AND 51RCD(-O)

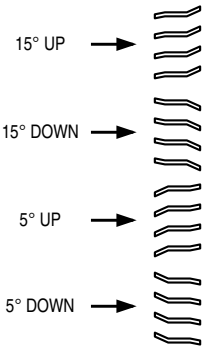




❑ **MODEL 51RC**
Reversible Core Grille

❑ **MODEL 51RC-O**
Reversible Core Register
(Includes O. B. Damper)

Reversible core provides 4 different vertical deflections:



❑ **MODEL 51RCD**
Reversible Core Grille with Rear Directional Vanes

❑ **MODEL 51RCD-O**
Reversible Core Register with Rear Directional Vanes
(Includes O. B. Damper)

DESCRIPTION:

Reversible core 'linear style' grilles and registers combine rugged aluminum construction, pleasing architectural design and flexible air pattern versatility.

The blade core is removable and may be rotated or reversed to achieve any one of four air deflection patterns.

For additional air pattern control in supply applications, these grilles are available with optional rear deflection vanes which are friction pivoted and adjustable in order to provide horizontal spread of the air pattern from 0° to 45°.

CONSTRUCTION:

1. Extruded aluminum frame is mechanically interlocked for strength with reinforced hairline mitered corners.
2. Horizontal aluminum blades are spaced on 1/4" (6) centers and feature mandrel tube construction. Blade core is secured by a minimum of four sliding friction latches and is removable without the need for special tools. Optional rear directional vanes are extruded aluminum 'teardrop' profile on 3/4" (19) centers.
3. Opposed blade damper on registers features corrosion resistant steel construction and a screwdriver slot operator.
4. Minimum size is 6" x 4" (152 x 102). Maximum size is 48" x 24" (1219 x 610). Available in 1" (25) nominal increments.

   Blades always run parallel to width (first specified dimension). Larger sizes are supplied as multiple single sections to suit.
5. Type N standard fastening is with sheet metal screws through neck of grille frame while core is removed, providing a clean, architectural appearance.
6. Standard finish is AW Appliance White.

OPTIONS:

1. Finish:
   ❑ SP Special _____ .
2. Fastening:
   ❑ Type A External countersunk screw holes on frame margin.
3. ❑ OAL Aluminum opposed blade damper.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	2 - 1 - 11	51RC	20 - 4 - 99RR	51RC-1

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.

Nailor Industries Inc.

Standard and Optional Finishes For Grilles and Diffusers

Nailor offers a selection of standard colors and finishes available on our grilles, registers and diffusers. For painted finishes, our state-of-the-art paint systems provide environmentally friendly finishing solutions with uniform coverage and coating thickness. The result is an exceptionally durable finish that resists scratching, corrosion and general wear. Additional facilities for special requirements, as well as a selection of anodized or brushed finishes, complete our ability to provide unmatched beauty and durability for any application.

NAILOR POWDER COAT PROPERTIES

FILM THICKNESS	2.0 to 3.0 mils
HARDNESS	2 H
IMPACT RESISTANCE	Direct: 160 inch - lbs. Reverse 160 inch - lbs.
SALT SPRAY	1000 hours

ELECTROCOATING PROPERTIES

FILM THICKNESS	.8 to 1.2 mils
HARDNESS	HB TO H
IMPACT RESISTANCE	80 inch - lbs
SALT SPRAY	100 hours

POWDER COAT

Nailor's powder coat is a high-tech thermosetting polyester powder coating with superior physical properties that provide excellent color and gloss retention. The finish offers extreme durability and hardness that resists scratching, chipping and general wear. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse before a final powder coat finish is applied and baked. The environmentally friendly Nailor powder coat system assures uniform coverage and color consistency resulting in a long lasting superior finish. Colors, including simulated anodizing, which is far more economical than color anodizing, can be selected from Nailor's standard color chart or non-standard colors and can be matched from sample chips provided to Nailor.

ELECTROCOATING

E-Coat is an environmentally friendly coating that provides complete coverage and a wide range of performance properties, formulated to meet corrosion, durability and other performance specifications. Electrocoating is a highly automated process in which paint is electrically deposited onto a metal foundation. Film build thickness is uniform and overall application efficiencies are in excess of 90%. Paint is consistent on all part-to-part surfaces, preventing sags, runs or drips. E-Coat offers flexibility, better first yield pass and quicker production times compared to other forms of paint applications. Electrocoating is an excellent solution that offers superior properties and uniform finish.

CLEAR ANODIZING (Aluminum products only)

Clear anodizing is a clear oxide coating that exemplifies an aluminum surface's natural oxide coating producing a hard, scratch resistant surface that is resistant to general wear and mild chemicals. The process provides a natural looking, virtually maintenance free finish that will endure for many years.

COLOR ANODIZING (Aluminum products only)

Color anodizing is an electrolytic process where, after standard anodizing procedures, colored metallic pigments penetrate the oxide surface pores producing a corrosion resistant, colorfast finish. The process results in a natural metallic appearance that requires little maintenance.

BRUSHED AND CLEAR COAT

Available on specific aluminum products (consult applicable product page for availability). Surface is brushed to achieve a scratch finish texture before being degreased and chemically cleaned. A clear lacquer coating is then applied to provide a durable protective finish.

#4 BRUSHED SATIN POLISHED (Stainless Steel products only)

Surface is polished to ASTM A480 #4 standard to achieve a bright durable finish that is resistant to mild chemicals and corrosion. A final coating is not required due to the inherent anti-corrosion properties of the stainless steel.

PRIME COAT

Prime coat provides a stable base for painting in the field. Surface pretreatment includes degreasing and a chemical cleaning before an alkyd prime coat is applied. After a thorough cleaning for dust, etc. that can contaminate the final finish and cause premature flaking or peeling, finish coat should be field applied as soon as possible.

PAINT PREPARED ALUMINUM (Aluminum products only)

Allows for field applied paint. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse. Finish coat should be field applied as soon as possible.

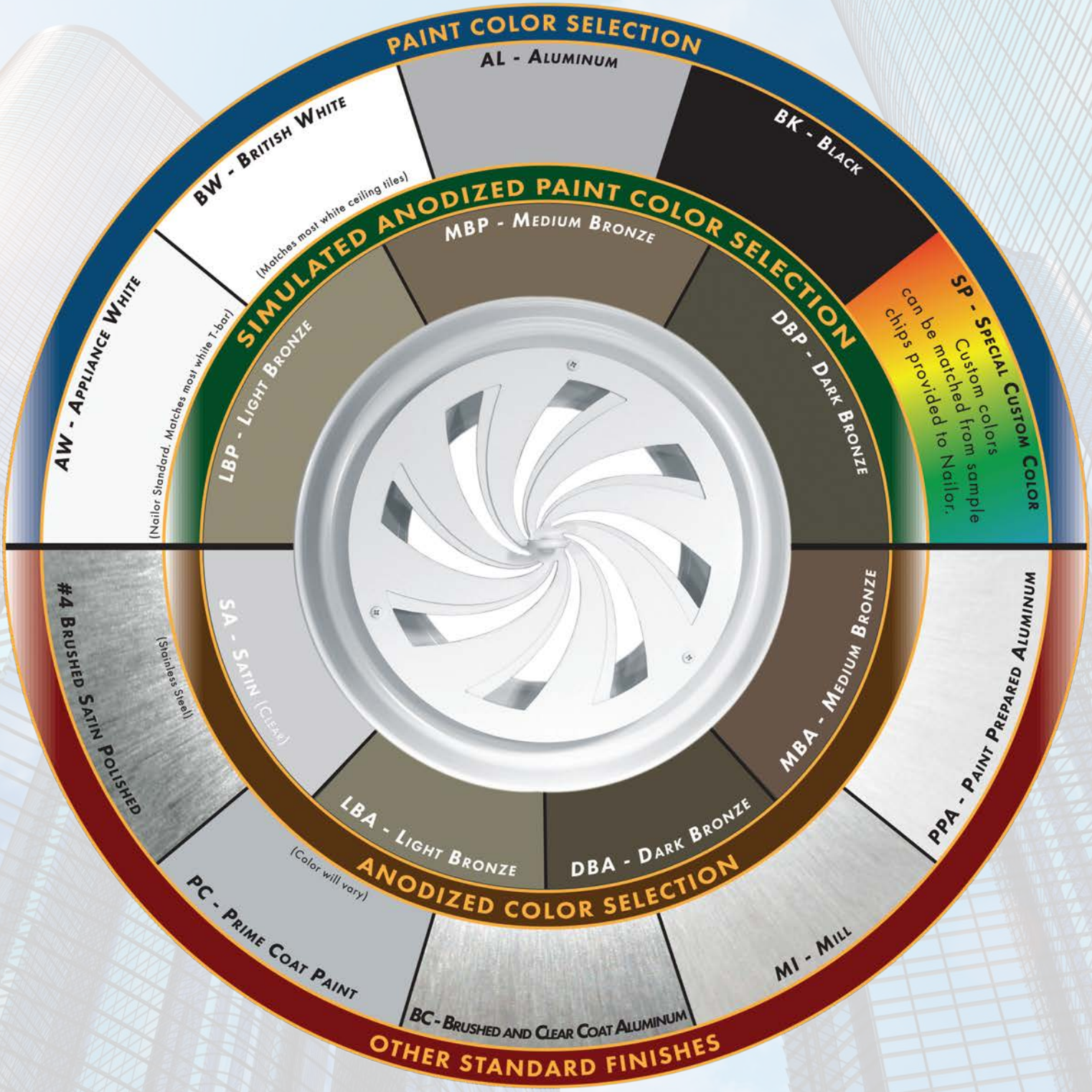
MILL FINISH

Surface is left untreated and requires cleaning, degreasing, etc. in the field before final finish can be applied if required.

Nailor® Industries Inc.

Standard and Optional Finishes For Grilles and Diffusers

The following standard colors and finishes are available on applicable Nailor air distribution products. Consult individual product pages for availability



The pictured finishes have been represented as best as possible within printing limitations. However, actual finish may vary. Contact your Nailor representative for a color chip sample on the material specified for a more accurate representation.

DBK - Black (for registers ordered with factory mounted dampers) - ***BA*** - Perforated Diffusers (4300 series only) Appliance White (AW) face with black back pan and pattern controllers.

PERFORMANCE DATA:
REVERSIBLE CORE GRILLES AND REGISTERS • 51RC SERIES
MODELS: 51RC, 51RCD

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity / Velocity Pressure		200 .003	300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	900 .051	1000 .062
				Total Pressure	0°	.007	.016	.029	.045	.065	.089	.117	.147	.181
					22 1/2°	.008	.019	.033	.052	.075	.102	.134	.169	.209
					45°	.013	.029	.051	.079	.113	.156	.205	.258	.318
6 x 6	8 x 4 10 x 4	0.20		CFM		40	60	80	100	120	140	160	180	200
				Noise Criteria		–	–	–	–	18	23	27	30	33
			.14	Throw	0°	2-5-10	5-7-13	7-9-16	8-12-18	10-14-20	11-15-21	12-16-23	14-17-24	15-18-25
			.13		22 1/2°	2-4-8	4-6-10	6-7-13	6-10-14	8-11-16	9-12-17	10-13-18	11-14-19	12-14-20
			.12		45°	1-2-5	3-4-7	4-5-8	4-6-9	5-7-10	6-8-11	6-8-12	7-8-12	8-9-13
8 x 6	10 x 5 12 x 4	0.27		CFM		54	81	108	135	162	189	216	243	270
				Noise Criteria		–	–	–	–	19	24	28	31	34
			.18	Throw	0°	2-5-12	5-8-15	8-12-18	10-14-20	11-16-23	13-18-25	15-19-27	16-20-28	17-21-30
			.17		22 1/2°	2-4-10	4-6-12	6-10-14	8-11-16	9-13-18	10-14-20	12-15-22	13-16-22	14-17-24
			.15		45°	1-2-6	3-4-8	4-6-9	5-7-10	6-8-12	7-9-13	8-10-14	8-10-14	9-11-15
10 x 6	12 x 5 16 x 4	0.35		CFM		70	105	140	175	210	245	280	315	350
				Noise Criteria		–	–	–	15	20	25	29	32	35
			.23	Throw	0°	3-6-14	6-9-18	9-13-21	10-16-24	12-19-26	15-20-28	17-21-30	19-22-31	20-23-33
			.21		22 1/2°	2-5-11	5-7-14	7-10-17	8-13-19	10-15-21	12-16-22	14-17-24	15-18-25	16-18-26
			.20		45°	1-3-7	3-5-9	5-7-11	5-8-12	6-10-13	8-10-14	9-11-15	9-11-15	10-12-17
8 x 8	14 x 5	0.38		CFM		76	114	152	190	228	266	304	342	380
				Noise Criteria		–	–	–	16	21	26	30	33	36
			.24	Throw	0°	3-6-15	6-9-19	9-14-22	11-16-25	13-19-27	16-21-29	18-22-32	18-23-32	19-24-34
			.22		22 1/2°	2-5-12	5-7-15	7-11-18	9-13-20	10-15-22	13-17-23	14-18-26	14-18-26	15-19-27
			.21		45°	1-3-7	3-5-10	5-7-11	6-8-13	7-10-14	8-11-15	9-11-16	9-11-16	10-12-17
12 x 6	18 x 4	0.42		CFM		84	126	168	210	252	294	336	378	420
				Noise Criteria		–	–	–	16	21	26	30	33	36
			.27	Throw	0°	3-6-15	6-9-19	9-14-22	11-16-25	13-19-27	16-21-30	18-22-32	18-23-32	19-11-16
			.25		22 1/2°	2-5-12	5-7-15	7-11-18	9-13-20	10-15-22	13-17-24	14-18-26	14-18-26	15-19-27
			.23		45°	1-3-7	3-5-10	5-7-11	6-8-13	7-10-14	8-11-15	9-11-16	9-11-16	10-12-17
14 x 6	10 x 8	0.50		CFM		100	150	200	250	300	350	400	450	500
				Noise Criteria		–	–	–	17	22	27	31	34	37
			.32	Throw	0°	3-7-16	6-11-20	10-15-23	12-18-25	15-20-28	16-22-31	19-23-33	20-24-34	21-25-36
			.30		22 1/2°	2-6-13	5-9-16	8-12-18	10-14-20	12-16-22	13-18-25	15-18-26	16-19-27	17-20-29
			.27		45°	1-3-8	3-6-10	5-8-12	6-9-13	8-10-14	8-11-16	10-12-17	10-12-17	11-13-18
12 x 8	16 x 6 24 x 4	0.58		CFM		116	174	232	290	348	406	464	522	580
				Noise Criteria		–	–	–	18	23	28	32	35	38
			.36	Throw	0°	3-7-17	7-11-21	10-15-24	12-19-27	15-21-30	17-23-32	20-24-34	21-26-36	22-27-38
			.33		22 1/2°	2-6-14	6-9-17	8-12-19	10-15-22	12-17-24	14-18-26	16-19-27	17-21-29	18-22-30
			.31		45°	1-3-8	4-6-11	5-8-12	6-10-14	8-11-15	9-12-16	10-12-17	10-13-18	11-14-19
10 x 10	14 x 7 26 x 4	0.61		CFM		122	183	244	305	366	427	488	549	610
				Noise Criteria		–	–	–	18	23	28	32	35	38
			.38	Throw	0°	3-7-17	7-11-21	10-16-24	13-19-28	16-21-30	17-23-32	20-24-35	22-27-37	23-28-39
			.35		22 1/2°	2-6-14	6-9-17	8-13-19	10-15-22	13-17-24	14-18-26	16-19-28	18-22-30	18-22-31
			.33		45°	1-3-8	4-6-11	5-8-12	7-10-14	8-11-15	9-12-16	10-12-18	11-13-18	12-14-20
18 x 6	14 x 8 28 x 4 30 x 4	0.65		CFM		130	195	260	325	390	455	520	585	650
				Noise Criteria		–	–	–	19	24	29	33	36	39
			.41	Throw	0°	3-8-18	7-12-22	11-16-25	13-20-29	16-22-32	18-24-34	21-25-36	23-27-38	24-29-40
			.38		22 1/2°	2-6-14	6-10-18	9-13-20	10-16-23	13-18-26	14-19-27	17-20-29	18-22-30	19-23-32
			.44		45°	1-3-9	4-6-11	6-8-13	7-10-15	8-11-16	9-12-17	11-13-18	11-13-19	12-15-20
12 x 10	20 x 6 24 x 5	0.74		CFM		148	222	296	370	444	518	592	666	740
				Noise Criteria		–	–	–	19	24	29	33	36	39
			.46	Throw	0°	4-8-19	8-13-24	11-17-27	14-21-31	17-24-33	20-26-36	22-27-39	24-29-41	25-31-43
			.43		22 1/2°	3-6-15	6-10-19	9-14-22	11-17-25	14-19-26	16-21-29	18-22-31	19-23-33	20-25-34
			.39		45°	1-3-9	4-7-12	6-9-14	7-11-16	9-12-17	10-13-18	11-14-20	12-14-20	13-16-22
22 x 6	16 x 8 28 x 5 36 x 4	0.80		CFM		160	240	320	400	480	560	640	720	800
				Noise Criteria		–	–	–	20	25	30	34	37	40
			.50	Throw	0°	4-8-20	8-13-25	11-18-28	15-22-32	18-25-35	20-27-38	23-28-41	25-30-43	26-32-45
			.46		22 1/2°	3-6-16	6-10-20	9-14-22	12-18-26	14-20-28	16-22-30	18-22-33	20-24-34	21-26-36
			.43		45°	1-3-10	4-7-13	6-9-14	8-11-16	9-13-18	10-14-19	12-14-21	12-15-21	13-16-23
12 x 12	14 x 10 18 x 8 24 x 6 38 x 4	0.90		CFM		180	270	360	450	540	630	720	810	900
				Noise Criteria		–	–	–	20	25	30	34	37	40
			.55	Throw	0°	4-9-21	9-14-26	12-18-29	15-23-33	18-26-36	21-27-39	24-29-42	26-31-45	27-33-47
			.51		22 1/2°	3-7-17	7-11-21	10-14-23	12-18-26	14-21-29	17-22-31	19-23-34	21-25-36	22-26-38
			.47		45°	1-4-10	5-7-13	6-9-15	8-12-17	9-13-18	11-14-20	12-15-21	13-15-22	14-17-24

For performance data notes, see F137.

PERFORMANCE DATA:
REVERSIBLE CORE GRILLES AND REGISTERS • 51RC SERIES
MODELS: 51RC, 51RCD

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity / Velocity Pressure		200 .003	300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	900 .051	1000 .062
				Total Pressure	0° 22 1/2° 45°	.007 .008 .013	.016 .019 .029	.029 .033 .051	.045 .052 .079	.065 .075 .113	.089 .102 .156	.117 .134 .205	.147 .169 .258	.181 .209 .318
18 x 10	30 x 6	1.13		CFM		226	339	452	565	678	791	904	1017	1130
				Noise Criteria		–	–	–	21	26	31	35	38	41
			.69	Throw	0°	4-10-23	9-15-29	14-20-33	17-25-36	20-29-40	24-30-43	27-33-46	28-34-48	30-36-51
			.64		22 1/2°	3-8-18	7-12-23	11-16-26	14-20-29	16-23-32	19-24-34	22-26-37	22-27-38	24-29-41
			.59		45°	1-5-11	5-8-15	7-10-17	9-13-18	10-15-20	12-15-22	14-17-23	14-17-24	15-18-26
14 x 14	16 x 12 20 x 10 24 x 8 34 x 6	1.24		CFM		248	372	496	620	744	868	992	1116	1240
				Noise Criteria		–	–	–	21	26	31	35	38	41
			.75	Throw	0°	5-12-26	11-18-33	16-25-39	20-29-42	24-33-47	27-36-51	31-39-54	33-40-57	35-42-60
			.70		22 1/2°	4-10-21	9-14-26	13-20-31	16-23-34	19-26-38	22-29-41	25-31-43	26-32-46	28-34-48
			.64		45°	2-6-13	6-9-17	8-13-20	10-15-21	12-17-24	14-18-26	16-20-27	16-20-28	18-21-30
18 x 12	16 x 14 22 x 10 28 x 8 38 x 6	1.37		CFM		274	411	548	685	822	959	1096	1233	1370
				Noise Criteria		–	–	15	22	27	32	36	39	42
			.83	Throw	0°	5-12-26	11-18-33	16-25-39	20-30-43	24-33-47	28-36-51	32-39-54	33-41-58	35-43-61
			.77		22 1/2°	4-10-21	9-14-26	13-20-31	16-24-34	19-26-38	22-29-41	26-31-43	26-33-46	28-34-49
			.71		45°	2-6-13	6-9-17	8-13-20	10-15-22	12-17-24	14-18-26	16-20-27	16-20-29	18-22-31
24 x 10	20 x 12 30 x 8	1.52		CFM		304	456	608	760	912	1064	1216	1368	1520
				Noise Criteria		–	–	15	22	27	32	36	39	42
			.92	Throw	0°	6-12-28	12-19-35	16-25-41	21-32-45	25-35-50	29-38-53	34-41-57	35-43-61	37-45-65
			.85		22 1/2°	5-10-22	10-15-28	13-20-33	17-26-36	20-28-40	23-30-42	27-33-46	28-34-49	30-36-51
			.79		45°	3-6-14	6-10-18	8-13-21	11-16-23	13-18-25	15-19-27	17-21-29	17-21-30	19-23-32
16 x 16	18 x 14 22 x 12 30 x 8	1.64		CFM		328	492	656	820	984	1148	1312	1476	1640
				Noise Criteria		–	–	15	22	27	32	36	39	42
			.99	Throw	0°	6-13-30	12-20-37	17-26-42	22-32-47	26-37-51	31-40-56	35-42-59	37-45-64	39-47-67
			.92		22 1/2°	5-10-24	10-16-30	14-21-34	18-26-38	21-30-41	25-32-45	28-34-47	30-36-51	31-38-54
			.85		45°	3-6-15	6-10-19	9-13-21	11-16-24	13-19-26	16-20-28	18-21-30	18-22-32	20-24-34
24 x 12	18 x 16 20 x 14 30 x 10 36 x 8	1.85		CFM		370	555	740	925	1110	1295	1480	1665	1850
				Noise Criteria		–	–	16	23	28	33	37	40	43
			1.11	Throw	0°	6-13-30	12-20-38	18-27-44	22-33-48	27-38-54	32-40-58	36-44-62	38-46-65	40-48-69
			1.03		22 1/2°	5-10-24	10-16-30	14-22-35	18-26-38	22-30-43	26-32-46	29-35-50	30-37-52	32-38-55
			.95		45°	3-6-15	6-10-19	9-14-22	11-17-24	14-19-27	16-20-29	18-22-31	19-23-32	20-24-35
18 x 18	20 x 16 24 x 14 28 x 12 32 x 10	2.10		CFM		420	630	840	1050	1260	1470	1680	1890	2100
				Noise Criteria		–	–	16	23	28	33	37	40	43
			1.25	Throw	0°	6-14-32	13-21-40	19-29-47	24-36-52	29-40-57	33-43-62	38-47-66	40-49-70	42-52-74
			1.16		22 1/2°	5-11-26	10-17-32	15-23-38	19-29-42	23-32-46	26-34-50	30-38-53	32-39-66	34-42-59
			1.07		45°	3-7-16	7-11-20	10-15-24	12-18-26	15-20-29	17-22-31	19-24-33	20-24-35	21-26-37
30 x 12	20 x 18 22 x 16 26 x 14 36 x 10	2.32		CFM		464	696	928	1160	1392	1624	1856	2088	2320
				Noise Criteria		–	–	17	24	29	34	38	41	44
			1.40	Throw	0°	7-15-34	14-23-43	21-31-50	26-39-56	31-43-61	36-47-67	41-50-71	44-53-75	46-56-79
			1.30		22 1/2°	6-12-27	11-18-34	17-25-40	21-31-45	25-34-49	29-38-54	33-40-57	35-42-60	32-45-63
			1.20		45°	3-7-17	7-12-22	11-16-25	13-20-28	16-22-31	18-24-34	21-25-36	22-26-37	23-28-40
24 x 16	32 x 12	2.50		CFM		500	750	1000	1250	1500	1750	2000	2250	2500
				Noise Criteria		–	–	17	24	29	34	38	41	44
			1.49	Throw	0°	7-16-36	14-24-45	22-32-52	27-40-58	32-45-64	37-49-68	43-52-74	46-55-78	48-58-82
			1.38		22 1/2°	6-13-29	11-19-36	18-26-42	22-32-46	26-36-51	30-39-54	34-42-59	37-44-62	38-46-66
			1.28		45°	3-8-18	7-12-23	11-16-26	14-20-29	16-23-32	19-25-34	22-26-37	23-27-39	24-29-41
20 x 20	22 x 18	2.61		CFM		522	783	1044	1305	1566	1827	2088	2349	2610
				Noise Criteria		–	–	17	24	29	34	38	41	44
			1.55	Throw	0°	7-16-37	15-24-46	22-32-53	27-41-59	32-46-65	38-50-70	44-53-75	46-56-80	49-59-84
			1.44		22 1/2°	6-13-30	12-19-37	18-26-42	22-33-47	26-37-52	30-40-56	35-42-60	37-45-64	39-47-67
			1.33		45°	3-8-18	8-12-23	11-16-27	14-21-30	16-23-33	19-25-35	22-27-38	23-28-40	25-30-42
36 x 12	22 x 20 24 x 18 26 x 16 30 x 14	2.79		CFM		558	837	1116	1395	1674	1953	2232	2511	2790
				Noise Criteria		–	–	17	24	29	34	38	41	44
			1.67	Throw	0°	7-16-38	15-25-48	23-34-55	28-42-61	34-48-68	4-51-73	45-55-77	47-58-82	50-61-86
			1.55		22 1/2°	6-13-30	12-20-38	18-27-44	22-34-49	27-38-54	32-41-58	36-44-62	38-46-66	40-49-69
			1.44		45°	3-8-19	8-13-24	12-17-28	14-21-31	17-24-34	20-26-37	23-28-39	23-29-41	25-31-43
22 x 22	24 x 20 26 x 18 30 x 16 40 x 12	3.17		CFM		634	951	1268	1585	1902	2219	2536	2853	3170
				Noise Criteria		–	–	18	25	30	35	39	42	45
			1.89	Throw	0°	8-18-40	17-27-50	24-36-58	29-45-65	36-50-71	42-54-77	47-58-82	50-62-87	53-65-92
			1.76		22 1/2°	6-14-32	14-22-40	19-29-46	23-36-52	29-40-57	34-43-62	38-46-66	40-50-70	42-52-74
			1.62		45°	4-9-20	9-14-25	12-18-29	15-23-33	18-25-36	21-27-39	24-29-41	25-31-43	27-33-46

For performance data notes, see F137.

PERFORMANCE DATA:
REVERSIBLE CORE GRILLES AND REGISTERS • 51RC SERIES
MODELS: 51RC, 51RCD

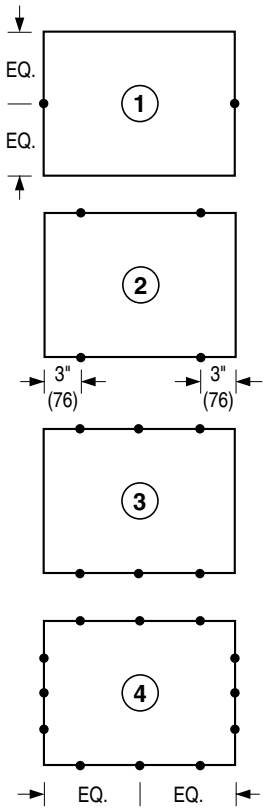
Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity / Velocity Pressure		200 .003	300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	900 .051	1000 .062
				Total Pressure	0° 22 1/2° 45°	.007 .008 .013	.016 .019 .029	.029 .033 .051	.045 .052 .079	.065 .075 .113	.089 .102 .156	.117 .134 .205	.147 .169 .258	.181 .209 .318
42 x 12	36 x 14	3.27		CFM		654	981	1308	1635	1962	2289	2616	2943	3270
				Noise Criteria		–	–	18	25	30	35	39	42	45
			1.95	Throw	0°	8-18-41	17-27-51	24-36-59	30-45-66	36-51-72	42-55-77	48-59-83	50-63-88	53-66-93
			1.81		22 1/2°	6-14-33	14-22-41	19-29-47	24-36-53	29-41-58	34-44-62	38-47-66	40-50-70	42-53-74
			1.68		45°	4-9-20	9-14-26	12-18-30	15-23-33	18-26-36	21-28-39	24-30-42	25-31-44	27-33-47
30 x 18	24 x 22 34 x 16 40 x 14	3.54		CFM		708	1062	1416	1770	2124	2478	2832	3186	3540
				Noise Criteria		–	–	18	25	30	35	39	42	45
			2.10	Throw	0°	9-18-42	18-28-53	25-37-61	31-47-69	37-53-75	44-57-81	50-61-86	53-65-92	56-69-97
			1.95		22 1/2°	7-14-34	14-22-42	20-30-49	25-38-55	30-42-60	35-46-65	40-49-69	42-52-74	45-55-78
			1.81		45°	4-9-21	9-14-27	13-19-31	16-24-35	19-27-38	22-29-41	25-31-43	26-32-46	28-35-49
24 x 24	26 x 22 28 x 20 32 x 18 36 x 16	3.79		CFM		758	1137	1516	1895	2274	2653	3032	3411	3790
				Noise Criteria		–	–	18	25	30	35	39	42	45
			2.25	Throw	0°	9-19-44	18-29-55	26-39-62	33-48-70	39-55-77	45-59-83	51-62-89	54-66-94	57-70-99
			2.09		22 1/2°	7-15-35	14-23-44	21-31-50	26-38-56	31-44-62	36-47-66	41-50-71	43-53-75	46-56-79
			1.93		45°	4-9-22	9-15-28	13-20-31	17-24-35	20-28-39	23-30-42	26-31-45	27-33-47	29-35-50
36 x 18	32 x 20 40 x 16 46 x 14	4.29		CFM		858	1287	1716	2145	2574	3003	3432	3861	4290
				Noise Criteria		–	–	19	26	31	36	40	43	46
			2.53	Throw	0°	9-20-46	19-31-58	28-42-68	35-52-75	42-58-83	48-63-89	55-68-95	58-71-101	61-75-106
			2.36		22 1/2°	7-16-37	15-25-46	22-34-54	28-42-60	34-46-66	38-50-71	44-54-76	46-57-81	49-60-85
			2.18		45°	4-10-23	10-16-29	14-21-34	18-26-38	21-29-42	24-32-45	28-34-48	29-35-50	31-38-53
26 x 26	28 x 24 48 x 14	4.47		CFM		894	1341	1788	2235	2682	3129	3576	4023	4470
				Noise Criteria		–	–	19	26	31	36	40	43	46
			2.62	Throw	0°	9-21-47	19-32-59	28-43-69	35-53-77	43-59-85	49-65-91	56-69-98	60-73-103	63-77-109
			2.44		22 1/2°	7-17-38	15-26-47	22-34-55	28-42-62	34-47-68	39-52-73	45-55-78	48-58-82	50-62-87
			2.25		45°	4-10-23	10-16-30	14-22-35	18-27-32	22-30-43	25-33-46	28-35-49	30-36-51	32-39-55
30 x 24	32 x 22 36 x 20 40 x 18	4.77		CFM		954	1431	1908	2385	2862	3339	3816	4293	4770
				Noise Criteria		–	–	19	26	31	36	40	43	46
			2.81	Throw	0°	10-22-49	20-33-61	29-44-71	36-54-79	44-61-87	51-67-94	58-71-101	62-75-106	65-79-112
			2.62		22 1/2°	8-18-39	16-26-49	23-35-57	29-43-63	35-49-70	41-54-75	46-57-81	50-60-85	52-63-90
			2.42		45°	5-11-24	10-17-31	15-22-36	18-27-40	22-31-44	26-34-47	29-36-51	31-37-53	33-40-56
28 x 28	30 x 26 36 x 22 40 x 20	5.20		CFM		1040	1560	2080	2600	3120	3640	4160	4680	5200
				Noise Criteria		–	–	20	27	32	37	41	44	47
			3.09	Throw	0°	10-22-50	21-34-63	30-45-74	38-56-82	45-63-90	53-69-97	60-74-104	64-78-110	67-82-116
			2.88		22 1/2°	8-18-40	17-27-50	24-36-59	30-45-66	36-50-72	42-55-78	48-59-83	51-62-88	54-66-93
			2.66		45°	5-11-25	11-17-32	15-23-37	19-28-41	23-32-45	27-35-49	30-37-52	32-39-55	34-41-58
36 x 24	40 x 22 44 x 20	5.74		CFM		1148	1722	2296	2870	3444	4018	4592	5166	5740
				Noise Criteria		–	–	20	27	32	37	41	44	47
			3.38	Throw	0°	11-24-54	23-36-68	32-49-78	41-60-88	49-68-96	57-74-104	64-78-112	68-84-118	72-88-124
			3.15		22 1/2°	9-19-43	18-29-54	26-39-62	33-48-70	39-54-77	46-59-83	51-62-90	54-67-94	58-70-99
			2.91		45°	5-12-27	12-18-34	16-25-39	21-30-44	25-34-48	29-37-52	32-39-56	34-42-59	36-44-62
42 x 24	36 x 28 42 x 24 46 x 22	6.72		CFM		1344	2016	2688	3360	4032	4704	5376	6048	6720
				Noise Criteria		–	–	21	28	33	38	42	45	48
			3.95	Throw	0°	12-26-58	24-39-72	34-51-84	43-64-93	51-72-102	60-78-111	68-84-118	73-88-125	77-93-132
			3.68		22 1/2°	10-21-46	19-31-58	27-41-67	34-51-74	41-58-82	48-62-89	54-67-94	58-70-100	62-74-106
			3.40		45°	6-13-29	12-20-36	17-26-42	22-32-47	26-36-51	30-39-56	34-42-59	36-44-62	39-47-66
36 x 30	38 x 28	7.22		CFM		1444	2166	2888	3610	4332	5054	5776	6498	7220
				Noise Criteria		–	–	21	28	33	38	42	45	48
			4.23	Throw	0°	12-26-61	25-40-76	36-54-87	45-68-98	54-76-108	63-82-116	71-87-124	76-93-132	80-98-139
			3.94		22 1/2°	10-21-49	20-32-61	29-43-70	36-54-78	43-61-86	50-66-93	57-70-99	61-74-106	64-78-111
			3.64		45°	6-13-30	13-20-38	18-27-44	23-34-49	27-38-54	32-41-58	36-44-62	38-46-66	40-49-70
48 x 24	34 x 34 36 x 32 38 x 30 42 x 28	7.69		CFM		1538	2307	3076	3845	4614	5383	6152	6921	7690
				Noise Criteria		–	15	22	29	34	39	43	46	49
			4.51	Throw	0°	13-27-62	26-41-77	37-55-90	46-69-100	55-77-109	64-84-118	73-90-127	78-95-135	82-100-142
			4.20		22 1/2°	10-22-50	21-33-62	30-44-72	37-55-80	44-62-87	51-67-94	58-72-102	62-76-108	66-80-114
			3.88		45°	6-13-31	13-22-39	19-28-45	23-45-50	28-39-55	32-42-59	37-45-64	39-47-67	41-50-71

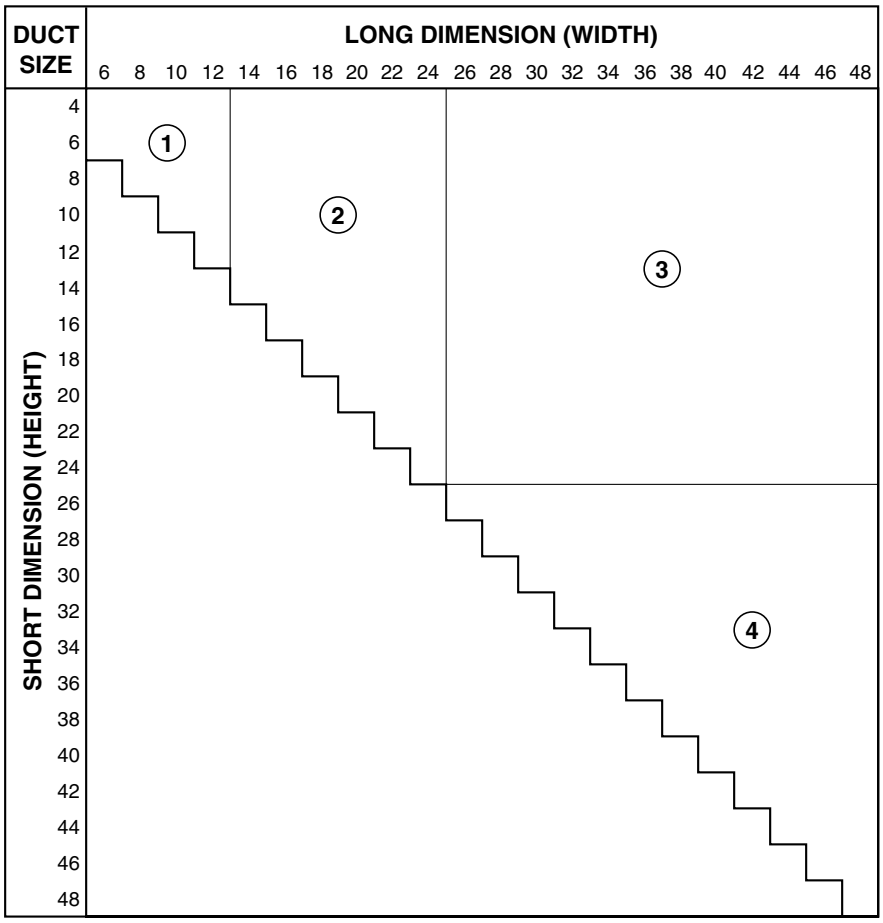
Performance Notes:

1. All pressures are in inches w.g..
2. Core Velocity is in feet per minute.
3. Tabulated data includes opposed blade damper. Without OBD, multiply Total Pressure (TP) by x 0.8. Subtract 4 Noise Criteria (NC) from the Noise Criteria value shown.
4. Throw values are given for terminal velocities of 150, 100 and 50 fpm under isothermal conditions.
5. Noise Criteria (NC) values were obtained using a 0° horizontal deflection rear blade setting. For deflection settings of 22 1/2° and 45°, add 2 and 7 NC to the tabulated NC level respectively.
6. When used as a return grille, the negative static pressure is obtained by multiplying the tabulated Total Pressure @ 0° deflection by x 0.8. Add 4 Noise Criteria to the Noise Criteria value shown.
7. Noise Criteria (NC) values are based on a room absorption of 10 dB, re 10^{-12} watts. Dash (–) in space denotes a Noise Criteria level of less than 15.
8. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Nailor Industries Inc.

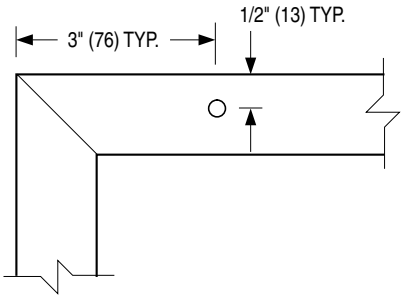
SCREW HOLE LOCATION CHART
FOR MODELS: 51C, 61C, 5100, 6100, 7100, 51EC TYPE S, 61EC TYPE S, 51PR, 61PR AND 51RC

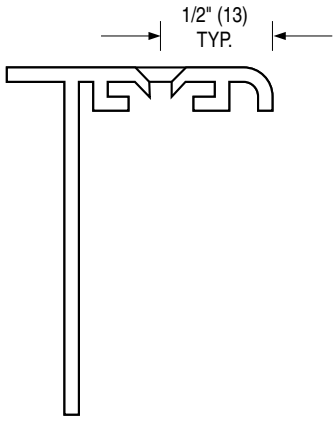




DESCRIPTION:

1. All screw holes are located 1/2" (13) in from the outside edge of the frame.
2. Use the chart above to determine which screw hole location diagram applies based on the duct size of the grille or register.
3. This information is provided for general information only. Pre-drilling of mounting holes is not recommended. The actual grille or register, as supplied, should be used as a template to enhance the installation quality.





SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**30 - 4 - 01**	**SUPP./G&R**	**NEW**	**SHLC-1**

Dimensions are in inches (mm).

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.