

CURVED SPIRAL DUCT GRILLES

Nailor's unique curved spiral duct grille design offers an architecturally superior appearance and saves installation time and money by directly mounting to the duct. This eliminates the need to fabricate stand-off saddles required for installing standard grilles. These grilles are available for both supply and return air applications.

- Double Deflection – Aluminum Models 51DVC, 51DHC** Page F50
- Double Deflection – Steel Models 61DVC, 61DHC** Page F54
- Single Deflection – Aluminum Models 51SVC, 51SHC** Page F51
- Single Deflection – Steel Models 61SVC, 61SHC** Page F55
- Linear Slot Face – Steel Models 61L50C, 61L75C, 61L10C** Page F67
- Perforated – Aluminum Model 51PRC** Page F52
- Perforated – Steel Model 61PRC** Page F56
- 45° Fixed Blade – Aluminum Models 5145HC, 5155HC** Page F53
- 45° Fixed Blade – Steel Models 6145HC, 6155HC** Page F57

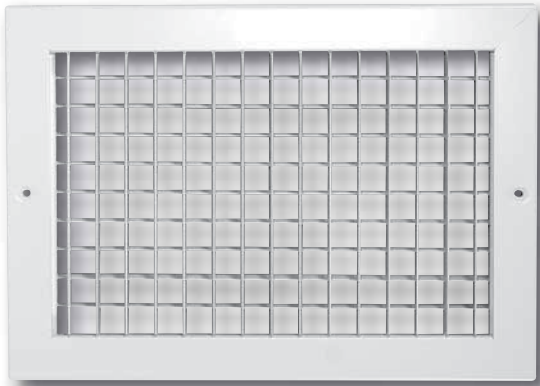


Models 61DVC, 6155HC, 61SVC

AIRFOIL BLADE GRILLES AND REGISTERS

Sleek design, premium performance and a true extruded aluminum airfoil blade is what makes this series superior to the industry standard. The models in this series are designed for engineers and architects who require exceptional quality and performance. As standard, the grilles and registers have countersunk screw holes in the extruded aluminum frame, which make for a neat clean appearance. Optional opposed blade dampers have a screwdriver slot operator for adjustment through the face of the register.

AIRFOIL BLADE — SUPPLY AIR



Model 71DV

DOUBLE DEFLECTION

A dual set of individually adjustable blades are friction pivoted and can be easily adjusted to provide maximum control of the air pattern for spread and deflection in two planes. The airfoil blades are spaced on 3/4" (19) centers.

- Aluminum – Models 71DV, 71DH**
- Suffix '-O' adds a steel OBD
- Suffix '-OA' adds an aluminum OBD

Page F71

SINGLE DEFLECTION

A single set of individually adjustable blades are friction pivoted and can be easily adjusted to provide the desired spread or deflection in a single plane. The airfoil blades are spaced on 3/4" (19) centers.

- Aluminum – Models 71SV, 71SH** Page F72
- Suffix '-O' adds a steel OBD
- Suffix '-OA' adds an aluminum OBD



Model 71SV

EXCLUSIVE WARRANTY FOR NAILOR STEEL GRILLES, REGISTERS AND DIFFUSERS

LIMITED WARRANTY – SERIES 61C, 6100, 61EC, 61F, RNS, RNS2,
UNI, 4300, 6500, 7500 AND 61CC

Nailor Industries Inc. ('Nailor') warrants to the original and each subsequent owner of a new Nailor Series Grille, Register or Ceiling Air Diffuser in the model series titled above, constructed of corrosion-resistant steel with a factory applied paint finish that should rust become visible on the exposed portion of any individual product covered by this agreement Nailor will replace the rusted unit. Any diffuser affected by chemicals or misuse, including, without limitation, the failure to perform reasonable and necessary maintenance, will not be covered by this warranty. This warranty is for sixty (60) months from the date of the shipment by Nailor.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

The rusted unit will be shipped by the owner at its cost to Nailor for replacement. The cost of the replacement, including the cost of shipment to the owner, but excluding any costs for either the removal or preparation for shipment of the rusted unit and the re-installation of the replacement unit, will be borne by Nailor. A reasonable time should be allowed after shipment to Nailor for the replacement of the rusted unit.

This is the only warranty given with the purchase. Any warranties implied by law are limited to sixty (60) months from the date of shipment by Nailor. Nailor neither assumes nor authorizes any person to assume for it any other liability in connection with any diffuser covered by this agreement.

No payment or other compensation will be made for indirect or consequential damage such as, damage or injury to person or property or loss of revenue or profit which might be paid, incurred or sustained by reason of the use or inability to use a Nailor product listed above, even if such loss or damage could have been foreseen by Nailor.

Some states do not allow the exclusion of limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above may not apply to you.

CURVED SPIRAL DUCT GRILLES

- TRUE FULL RADIUS DESIGN
- DOUBLE DEFLECTION
- SUPPLY
- ALUMINUM

Models:

51DVC and 51DHC



Model 51DVC-DEX

Models 51DVC and 51DHC Curved Spiral Duct Supply Grilles are for use in exposed spiral duct applications requiring maximum flexibility. The front set of blades has the greatest effect on the air pattern, therefore should be selected based on particular requirements. Vertical front blades will control the spread and throw distance of the air pattern whereas horizontal front blades will control the rise and drop of the air pattern, typically directing warm air downwards or cool air upwards.

The innovative design incorporates a unique frame rolled to match the required duct radius. The grille frame mounts flush with the spiral duct and thus reduces the labor and installation cost by eliminating the need to fabricate stand-off saddles.

STANDARD FEATURES:

- Custom fabricated to fit only a single specified duct diameter.
- Furnished with Type A screw holes and mounting screws as standard.
- A thick foam gasket is provided to ensure a tight seal to duct.
- Extensive range of sizes are available.

CONSTRUCTION MATERIAL:

- Unique architectural single piece aluminum frame design, with a 1 3/8" (35) face border rolled to match required duct radius.
- A dual set of individually adjustable, friction pivoted, extruded aluminum "teardrop" blades on 3/4" (19) centers.

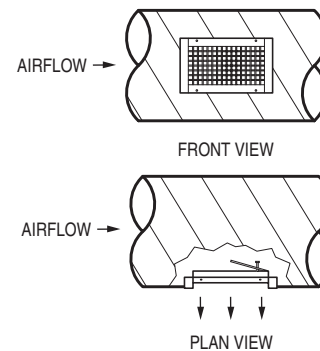
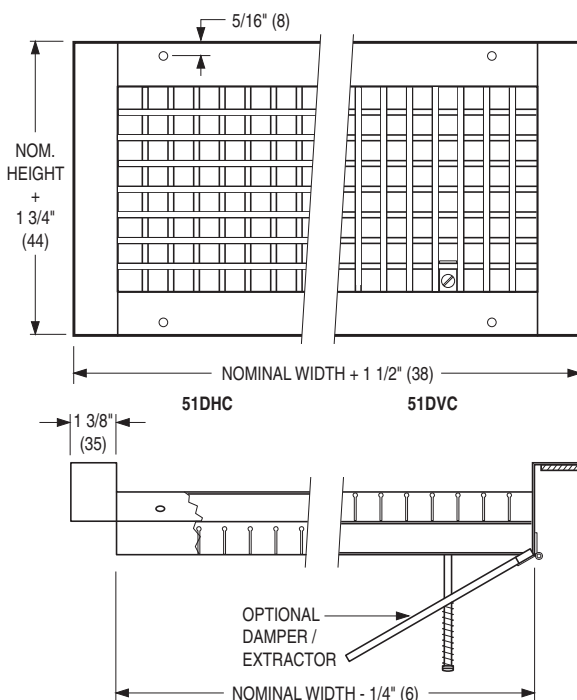
FINISH OPTIONS:

- Standard finish is AW Appliance White finish. Other finishes are available.

OPTIONS AND ACCESSORIES:

- Optional DEX Damper/Extractor (Air Scoop) is available.

For additional options and accessories, see page F191.



Available Sizes

Grille Width Min. – Max.	Grille Height	Duct Diameter Min. – Max.
10 – 48 (254 – 1219)	3 (76)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	4 (102)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	6 (152)	8 – 36 (203 – 914)
10 – 48 (254 – 1219)	8 (203)	10 – 36 (254 – 914)
10 – 48 (254 – 1219)	10 (254)	12 – 36 (305 – 914)
12 – 36 (305 – 914)	12 (305)	14 – 36 (356 – 914)

Duct dia. in even sizes only. Grilles available in nom. 1" (25) increments in width.

* Opening = Nom. + 1/4" (6) with DEX Damper/Extractor option.

Important: Grilles custom fabricated to fit a single specified duct dia. only.

CURVED SPIRAL DUCT GRILLES

- SINGLE DEFLECTION
- SUPPLY
- ALUMINUM

Models:

51SVC and 51SHC



Model 51SVC

Models 51SVC and 51SHC Curved Spiral Duct Supply Grilles are for use in exposed spiral duct applications requiring adjustment in a single horizontal or vertical plane. The vertical blades will control the spread and throw distance of the air pattern to accommodate various layouts. Horizontal blades will control the rise and drop of the air pattern, typically directing warm air downwards or cool air upwards. The innovative design incorporates a unique frame rolled to match the required duct radius. The grille frame mounts flush with the spiral duct and thus reduces the labor and installation cost by eliminating the need to fabricate stand-off saddles.

STANDARD FEATURES:

- Custom fabricated to fit only a single specified duct diameter.
- Furnished with Type A screw holes and mounting screws as standard.
- A thick foam gasket is provided to ensure a tight seal to duct.
- Extensive range of sizes are available.

CONSTRUCTION MATERIAL:

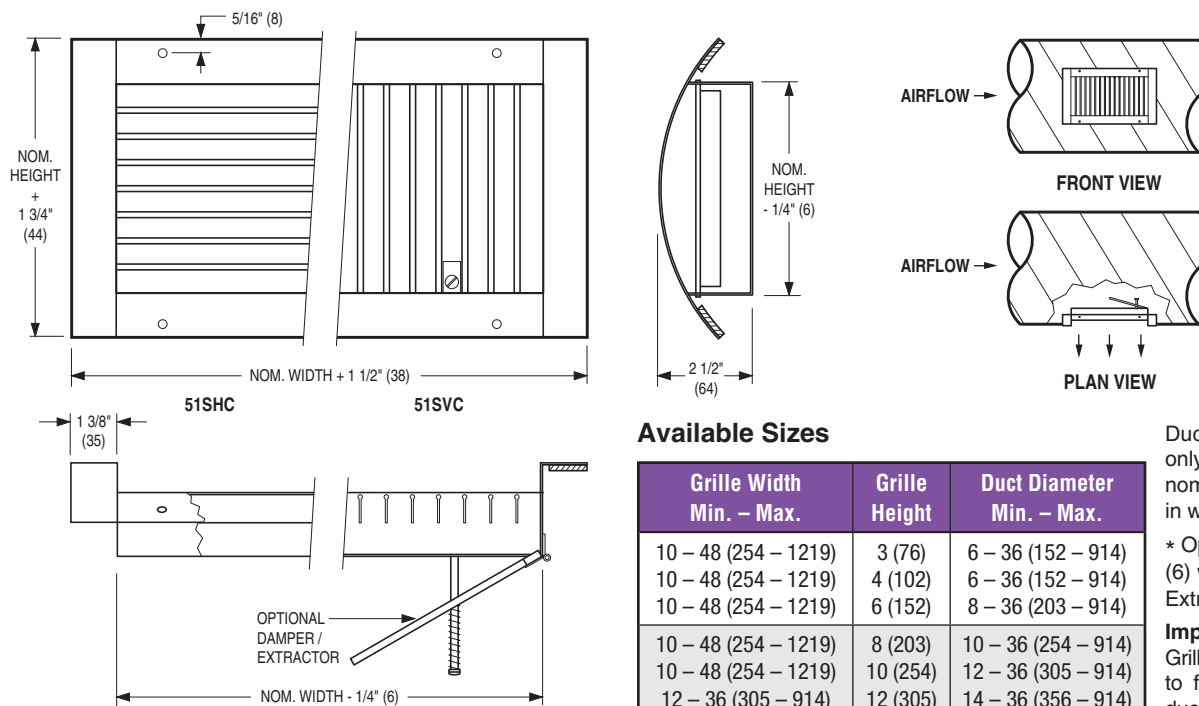
- Unique architectural single piece aluminum frame design, with a 1 3/8" (35) face border rolled to match required duct radius.
- A single set of individually adjustable, friction pivoted, extruded aluminum "teardrop" blades on 3/4" (19) centers.

FINISH OPTIONS:

- Standard finish is AW Appliance White finish. Other finishes are available.

OPTIONS AND ACCESSORIES:

- Optional DEX Damper/Extractor (Air Scoop) is available.
- For additional options and accessories, see page F191.



Available Sizes

Grille Width Min. - Max.	Grille Height	Duct Diameter Min. - Max.
10 - 48 (254 - 1219)	3 (76)	6 - 36 (152 - 914)
10 - 48 (254 - 1219)	4 (102)	6 - 36 (152 - 914)
10 - 48 (254 - 1219)	6 (152)	8 - 36 (203 - 914)
10 - 48 (254 - 1219)	8 (203)	10 - 36 (254 - 914)
10 - 48 (254 - 1219)	10 (254)	12 - 36 (305 - 914)
12 - 36 (305 - 914)	12 (305)	14 - 36 (356 - 914)

Duct dia. in even sizes only. Grilles available in nom. 1" (25) increments in width.

* Opening = Nom. + 1/4" (6) with DEX Damper/Extractor option.

Important:

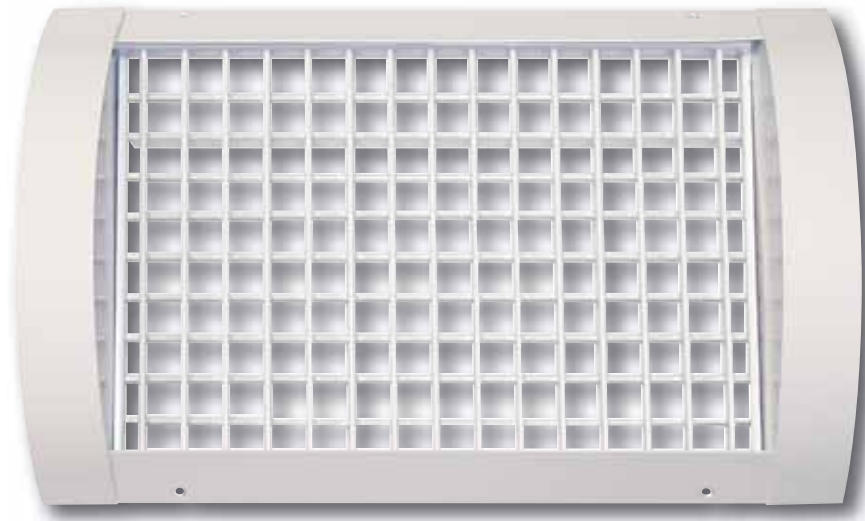
Grilles custom fabricated to fit a single specified duct dia. only.

CURVED SPIRAL DUCT GRILLES

- TRUE FULL RADIUS DESIGN
- DOUBLE DEFLECTION
- SUPPLY
- STEEL

Models:

61DVC and 61DHC



Model 61DVC

Models 61DVC and 61DHC Curved Spiral Duct Supply Grilles are for use in exposed spiral duct applications requiring maximum flexibility. The front set of blades has the greatest effect on the air pattern, therefore should be selected based on particular requirements. Vertical front blades will control the spread and throw distance of the air pattern whereas horizontal front blades will control the rise and drop of the air pattern, typically directing warm air downwards or cool air upwards.

The innovative design incorporates a unique frame rolled to match the required duct radius. The grille frame mounts flush with the spiral duct and thus reduces the labor and installation cost by eliminating the need to fabricate stand-off saddles.

STANDARD FEATURES:

- Custom fabricated to fit only a single specified duct diameter.
- Furnished with Type A screw holes and mounting screws as standard.
- A thick foam gasket is provided to ensure a tight seal to duct.
- Extensive range of sizes are available.

CONSTRUCTION MATERIAL:

- Unique corrosion-resistant steel frame design, with a 1 3/8" (35) face border rolled to match required duct radius.
- A dual set of individually adjustable, friction pivoted, "teardrop" blades on 3/4" (19) centers.

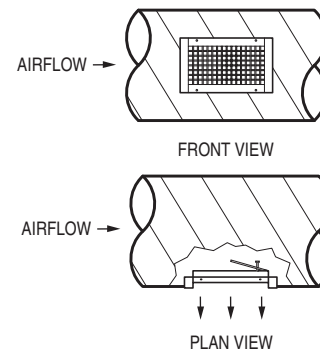
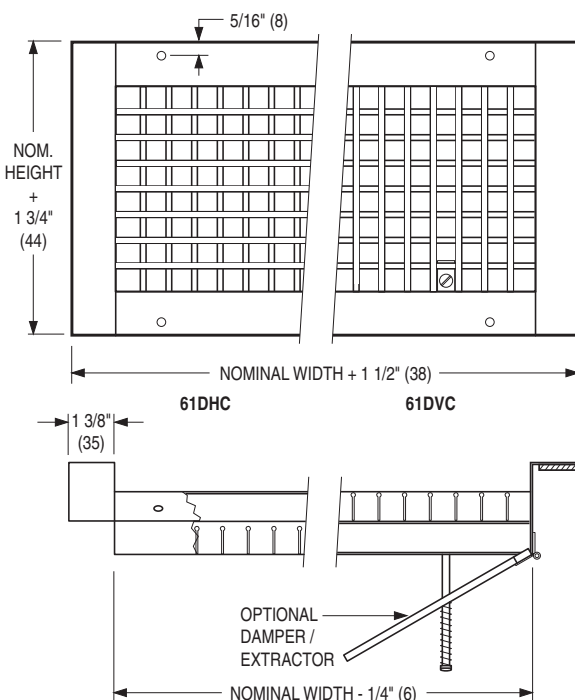
FINISH OPTIONS:

- Standard finish is AW Appliance White finish. Other finishes are available.

OPTIONS AND ACCESSORIES:

- Optional DEX Damper/Extractor (Air Scoop) is available.

For additional options and accessories, see page F191.



Available Sizes

Grille Width Min. – Max.	Grille Height	Duct Diameter Min. – Max.
10 – 48 (254 – 1219)	3 (76)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	4 (102)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	6 (152)	8 – 36 (203 – 914)
10 – 48 (254 – 1219)	8 (203)	10 – 36 (254 – 914)
10 – 48 (254 – 1219)	10 (254)	12 – 36 (305 – 914)
12 – 36 (305 – 914)	12 (305)	14 – 36 (356 – 914)

Duct dia. in even sizes only. Grilles available in nom. 1" (25) increments in width.

* Opening = Nom. + 1/4" (6) with DEX Damper/Extractor option.

Important: Grilles custom fabricated to fit a single specified duct dia. only.

CURVED SPIRAL DUCT GRILLES

- SINGLE DEFLECTION
- SUPPLY
- STEEL

Models:

61SVC and 61SHC



Model 61SVC

Models 61SVC and 61SHC Curved Spiral Duct Supply Grilles are for use in exposed spiral duct applications requiring adjustment in a single horizontal or vertical plane. The vertical blades will control the spread and throw distance of the air pattern to accommodate various layouts. Horizontal blades will control the rise and drop of the air pattern, typically directing warm air downwards or cool air upwards.

The innovative design incorporates a unique frame rolled to match the required duct radius. The grille frame mounts flush with the spiral duct and thus reduces the labor and installation cost by eliminating the need to fabricate stand-off saddles.

STANDARD FEATURES:

- Custom fabricated to fit only a single specified duct diameter.
- Furnished with Type A screw holes and mounting screws as standard.
- A thick foam gasket is provided to ensure a tight seal to duct.
- Extensive range of sizes are available.

CONSTRUCTION MATERIAL:

- Unique corrosion-resistant steel frame design, with a 1 3/8" (35) face border rolled to match required duct radius.
- A single set of individually adjustable, friction pivoted, "teardrop" blades on 3/4" (19) centers.

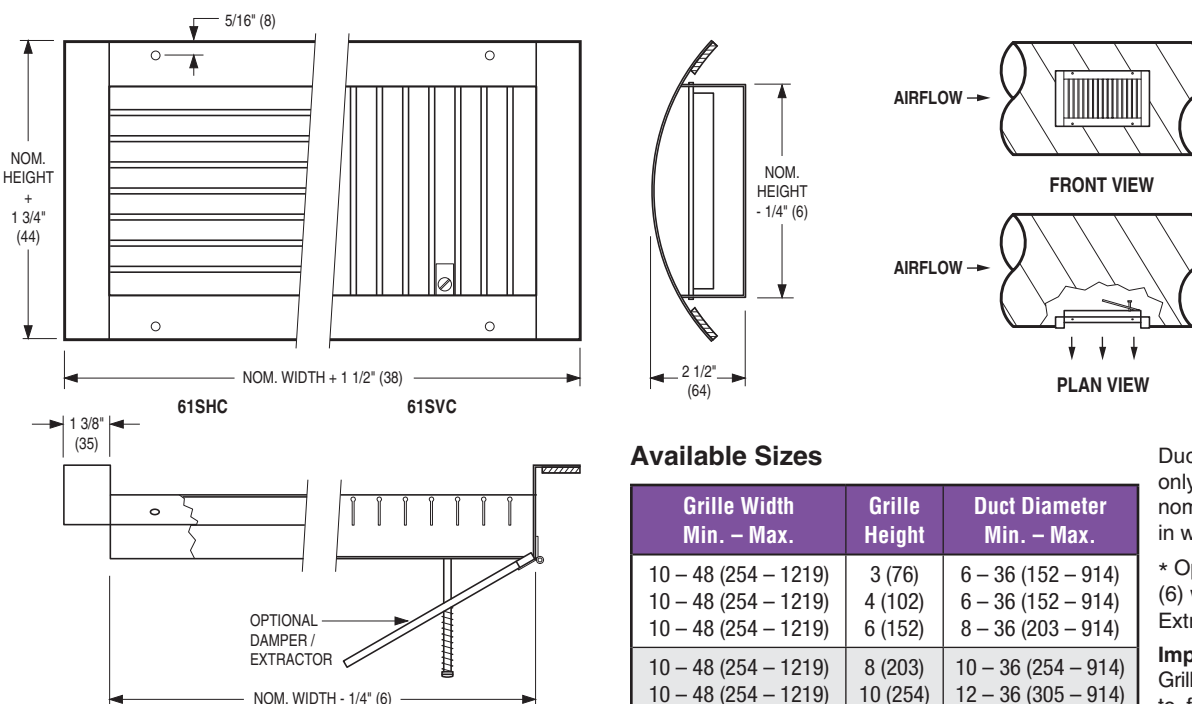
FINISH OPTIONS:

- Standard finish is AW Appliance White finish. Other finishes are available.

OPTIONS AND ACCESSORIES:

- Optional DEX Damper/Extractor (Air Scoop) is available.

For additional options and accessories, see page F191.



Available Sizes

Grille Width Min. – Max.	Grille Height	Duct Diameter Min. – Max.
10 – 48 (254 – 1219)	3 (76)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	4 (102)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	6 (152)	8 – 36 (203 – 914)
10 – 48 (254 – 1219)	8 (203)	10 – 36 (254 – 914)
10 – 48 (254 – 1219)	10 (254)	12 – 36 (305 – 914)
12 – 36 (305 – 914)	12 (305)	14 – 36 (356 – 914)

Duct dia. in even sizes only. Grilles available in nom. 1" (25) increments in width.

* Opening = Nom. + 1/4" (6) with DEX Damper/Extractor option.

Important:
Grilles custom fabricated to fit a single specified duct dia. only.

PERFORMANCE DATA:

CURVED SPIRAL DUCT SUPPLY GRILLES • 6100C/5100C SERIES

MODELS: 61DVC, 61DHC, 61SVC, 61SHC, 51DVC, 51DHC, 51SVC, 51SHC

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity		300	400	500	600	700	800	1000	1200	1400
				Velocity	Pressure	.006	.010	.016	.022	.031	.040	.062	.090	.122
10 x 3	0.15			CFM		45	60	75	90	105	120	150	180	210
				Noise Criteria		—	—	—	—	18	22	28	34	39
				Throw	0°	3-4-8	4-5-9	5-6-11	6-8-13	7-10-14	8-11-15	9-12-16	11-13-18	11-14-19
22 1/2°	2-3-6	3-4-7	4-5-9		5-6-10	6-8-11	6-9-12	7-10-13	9-11-15	9-11-15				
12 x 3	0.19			CFM		57	76	95	114	133	152	190	228	266
				Noise Criteria		—	—	—	—	19	23	29	35	40
				Throw	0°	4-5-9	5-6-11	6-8-13	7-10-14	8-11-15	8-11-16	11-13-18	11-14-19	12-15-21
22 1/2°	3-4-7	4-5-9	4-7-10		6-8-11	6-8-12	7-9-13	8-10-14	9-11-15	10-12-17				
10 x 4	14 x 3	0.22		CFM		66	88	110	132	154	176	220	164	308
				Noise Criteria		—	—	—	—	19	23	29	35	41
				Throw	0°	4-5-10	5-7-12	6-9-13	7-10-15	8-11-16	9-12-17	11-14-19	12-15-20	13-16-22
22 1/2°	3-4-8	4-6-10	5-7-10		6-8-12	6-9-13	7-10-14	8-10-14	9-11-15	10-12-16				
12 x 4	16 x 3	0.27		CFM		81	108	135	162	189	216	270	324	378
				Noise Criteria		—	—	—	15	20	24	30	36	41
				Throw	0°	4-6-11	6-8-13	7-10-14	8-11-16	9-13-18	11-13-19	12-15-21	13-16-22	13-17-25
22 1/2°	3-4-8	4-7-10	6-8-11		6-9-13	7-10-14	8-11-15	10-12-17	10-13-18	11-13-20				
18 x 3	0.29			CFM		87	116	145	174	203	232	290	348	406
				Noise Criteria		—	—	—	16	21	25	31	37	42
				Throw	0°	4-6-12	6-9-14	7-11-15	8-12-17	10-13-19	12-14-20	13-16-22	14-17-24	14-18-26
22 1/2°	3-5-10	5-7-11	6-9-12		6-10-14	8-10-15	10-11-16	10-13-18	11-14-19	11-14-21				
20 x 3	10 x 6 14 x 4	0.32		CFM		96	128	160	192	224	256	320	384	448
				Noise Criteria		—	—	—	16	21	25	31	37	42
				Throw	0°	4-6-13	6-9-15	7-11-17	8-13-18	11-14-20	12-15-21	14-16-23	15-18-25	15-19-27
22 1/2°	4-5-10	5-7-12	6-9-13		7-11-15	8-11-15	10-12-17	11-13-18	12-14-20	13-15-22				
16 x 4	22 x 3	0.36		CFM		108	144	180	216	252	288	360	432	504
				Noise Criteria		—	—	—	17	22	26	32	38	43
				Throw	0°	4-6-13	6-10-15	8-11-18	9-13-19	11-15-20	13-15-22	13-17-24	15-18-26	16-20-28
22 1/2°	4-5-11	5-8-13	6-9-14		7-11-15	9-12-16	10-13-18	11-13-19	12-15-21	13-15-22				
12 x 6	18 x 4 24 x 3	0.42		CFM		126	168	210	252	294	336	420	504	588
				Noise Criteria		—	—	—	17	22	26	32	38	43
				Throw	0°	4-6-13	6-10-15	8-11-18	9-13-19	11-15-21	13-15-22	13-17-24	15-20-27	16-20-29
22 1/2°	4-5-11	5-8-13	6-9-14		7-11-15	9-12-17	10-13-18	11-13-19	12-15-21	13-16-23				
20 x 4	28 x 3	0.45		CFM		135	180	225	270	315	360	450	540	630
				Noise Criteria		—	—	—	18	23	26	32	39	43
				Throw	0°	4-7-14	6-10-15	8-12-17	10-13-18	11-14-19	11-15-22	13-17-24	15-18-25	6-20-28
22 1/2°	3-6-11	5-8-12	6-10-14		8-10-14	9-11-15	9-12-18	10-14-19	12-14-20	13-16-22				
14 x 6	10 x 8 22 x 4	0.50		CFM		150	200	250	300	350	400	500	600	700
				Noise Criteria		—	—	—	18	23	27	33	39	44
				Throw	0°	4-8-14	7-11-16	8-13-18	11-14-20	11-15-22	13-16-23	15-18-25	16-20-28	18-22-30
22 1/2°	4-6-11	6-8-13	7-10-14		8-11-15	9-13-18	11-13-18	12-14-20	13-15-22	14-18-24				
12 x 8	16 x 6 24 x 4 32 x 3	0.58		CFM		174	232	290	348	406	464	580	696	812
				Noise Criteria		—	—	—	19	24	28	34	40	45
				Throw	0°	5-8-15	7-11-17	8-13-19	11-15-21	12-16-22	14-17-24	15-19-27	17-21-29	18-22-32
22 1/2°	4-6-12	6-8-13	7-11-15		8-12-17	10-13-18	11-13-19	13-15-21	13-17-24	15-18-25				
10 x 10	26 x 4 34 x 3	0.61		CFM		183	244	305	366	427	488	610	732	854
				Noise Criteria		—	—	—	19	24	28	34	40	45
				Throw	0°	5-8-15	7-11-17	9-13-20	11-15-21	12-16-22	14-17-25	16-20-27	17-21-30	19-22-32
22 1/2°	4-6-12	6-9-13	7-11-15		9-12-17	10-13-18	11-13-20	13-15-22	13-17-24	15-18-26				

For performance data notes, see F60.

PERFORMANCE DATA:

CURVED SPIRAL DUCT SUPPLY GRILLES • 6100C/5100C SERIES

MODELS: 61DVC, 61DHC, 61SVC, 61SHC, 51DVC, 51DHC, 51SVC, 51SHC

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity		300	400	500	600	700	800	1000	1200	1400
				Velocity	Pressure	.006	.010	.016	.022	.031	.040	.062	.090	.122
				0°	22 1/2°	.013	.023	.036	.052	.071	.093	.145	.209	.285
18 x 6	14 x 8 28 x 4 30 x 4 36 x 3	0.65	.44 .38 .33	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
12 x 10	20 x 6 30 x 4	0.74	.50 .44 .38	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
22 x 6	16 x 8 34 x 4	0.80	.54 .47 .41	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
12 x 12	14 x 10 18 x 8 24 x 6 36 x 4	0.90	.61 .53 .46	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
18 x 10	30 x 6	1.13	.77 .67 .58	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
24 x 8	16 x 12 20 x 10 24 x 8 34 x 6	1.20	.84 .73 .64	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
18 x 12	22 x 10 28 x 8 36 x 6	1.37	.93 .81 .71	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
24 x 10	20 x 12 30 x 8	1.52	1.03 .90 .78	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
32 x 8	22 x 12 26 x 10	1.61	1.12 .97 .84	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
24 x 12	30 x 10 36 x 8	1.85	1.26 1.09 .95	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
32 x 10	28 x 12	2.04	1.43 1.24 1.08	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	
30 x 12	36 x 10	2.32	1.58 1.37 1.19	CFM	0°	.013	.023	.036	.052	.071	.093	.145	.209	.285
				Noise Criteria	22 1/2°	.015	.026	.041	.060	.082	.107	.167	.241	.328
				45°	.023	.040	.063	.091	.125	.164	.254	.367	.499	

For performance data notes, see F60.

PERFORMANCE DATA:

CURVED SPIRAL DUCT SUPPLY GRILLES • 6100C/5100C SERIES

MODELS: 61DVC, 61DHC, 61SVC, 61SHC, 51DVC, 51DHC, 51SVC, 51SHC

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity		300	400	500	600	700	800	1000	1200	1400	
				Velocity	Pressure	.006	.010	.016	.022	.031	.040	.062	.090	.122	
32 x 12	38 x 10	2.48	1.70 1.48 1.29	CFM		744	992	1240	1488	1736	1984	2480	2976	3472	
				Noise Criteria		-	-	-	-	-	-	-	-	-	-
				Throw	0°	10-17-32	15-22-36	19-28-41	22-32-45	26-34-48	30-36-52	34-41-57	36-45-63	39-48-68	
					22 1/2° 45°	8-13-25 5-8-16	13-18-29 8-11-18	15-22-32 10-14-20	18-25-36 11-16-22	21-27-38 13-18-24	24-29-42 15-18-26	27-32-46 17-20-29	29-36-50 18-22-32	32-38-55 20-24-34	
40 x 10	44 x 10	2.56	1.77 1.54 1.34	CFM		768	1024	1280	1536	1792	2048	2560	3072	3584	
				Noise Criteria		-	-	20	25	30	34	40	46	51	
				Throw	0°	11-17-32	15-22-37	19-29-41	22-32-46	27-35-49	31-37-53	34-41-59	37-46-64	41-49-69	
					22 1/2° 45°	8-13-26 6-8-16	13-18-29 8-11-19	15-23-33 10-15-21	18-26-36 11-16-23	21-28-39 13-18-25	25-29-42 15-19-27	27-33-47 18-21-29	29-36-52 19-23-32	32-39-55 20-25-35	
36 x 12	44 x 10	2.79	1.90 1.65 1.44	CFM		837	1116	1395	1674	1953	2232	2790	3348	3906	
				Noise Criteria		-	-	20	25	30	34	40	46	51	
				Throw	0°	11-18-34	16-24-39	20-29-43	24-34-48	28-36-51	32-39-54	34-43-60	39-48-67	41-51-72	
					22 1/2° 45°	8-14-27 6-9-17	13-19-31 8-12-20	15-24-34 10-15-22	19-27-38 12-17-24	22-29-41 14-18-26	25-31-43 16-20-27	28-34-48 18-22-30	31-38-53 20-30-34	33-41-57 21-26-36	
48 x 10	44 x 10	3.08	2.16 1.87 1.63	CFM		924	1232	1540	1848	2156	2464	3080	3696	4312	
				Noise Criteria		-	-	21	26	31	35	41	47	52	
				Throw	0°	12-19-35	17-25-41	20-32-46	25-35-50	29-38-54	33-41-57	37-46-64	41-50-71	43-54-76	
					22 1/2° 45°	10-15-28 6-10-18	13-20-32 8-13-20	16-25-36 11-16-23	20-28-40 13-18-25	24-30-43 15-19-27	27-32-46 17-20-29	29-36-52 19-23-32	32-40-57 20-25-36	35-43-61 22-27-39	

Performance Notes:

- All pressures are in inches w.g..
- Core Velocity is in feet per minute.
- Performance data is based on double deflection grille without damper/extractor.
- 0°, 22 1/2° and 45° represent vertical blade deflection angles and horizontal spread.
- Throw values are given for terminal velocities of 150, 100 and 50 fpm under isothermal conditions, direct duct mounted grille, exposed duct with no ceiling effect.
- Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts @ 0° deflection. Dash (-) in space indicates an Noise Criteria of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

NC Corrections for Blade Deflection and Damper/Extractor set at 45 degrees (add).

Model Type	Damper/Extractor	Blade Deflection		
		0°	22 1/2°	45°
Double Deflection	With	+ 5	+ 7	+ 12
	Without	0	+ 2	+ 7
Single Deflection	With	+ 1	+ 3	+ 10
	Without	- 4	- 2	+ 5

TP Correction Factors for Grilles With Damper/Extractor set at 45 degrees.

Blade Deflection	0°	22 1/2°	45°
Double Deflection Factor	x 2.00	x 2.08	x 2.23
Single Deflection Factor	x 1.83	x 1.91	x 2.13

HOW TO ORDER

MODEL SERIES: 5100C

ALUMINUM CURVED SPIRAL DUCT GRILLES

EXAMPLE: 51DVC - 12 x 6 - 12 - S - AW - A - DEX

1. Models

Supply Double Deflection:

- 51DVC Vertical Front Blades,
3/4" (19) Spacing
- 51DHC Horizontal Front Blades,
3/4" (19) Spacing

Supply Single Deflection:

- 51SVC Vertical Blades,
3/4" (19) Spacing
- 51SHC Horizontal Blades,
3/4" (19) Spacing

Return:

- 51PRC Perforated Face
- 5145HC 45° Deflection,
3/4" (19) Spacing
- 5155HC 45° Deflection,
1/2" (13) Spacing

2. Nominal Width x Height

inches (mm)

3. Duct Diameter

inches

06 through 36 (in 2" increments)

4. Frame/Border Type

S Surface Mount (default)

5. Finish

- AW Appliance White (default)
- AL Aluminum
- BK Black
- BW British White
- LBP Light Bronze Paint
- MBP Medium Bronze Paint
- DBP Dark Bronze Paint
- MI Mill
- PC Prime Coat
- SP Special Custom Color

6. Fastening

- A Screw Holes (default)
- N None

7. Damper/Extractor

- None (standard) (default)
- DEX Damper/Extractor

Notes:

1. Nailor recommends the selection of vertical front blades on supply models for the majority of applications.
2. Refer to "Available Sizes" table for grille height/duct diameter limitations.
3. Not available in fractional or metric sizes.
4. For a standard grille with no special requirements, the "default" will automatically be selected. For example, an aluminum double deflection grille with vertical front blades is Model 51DVC. Unit will be supplied with screw holes and AW Appliance White finish.

Available Sizes

Grille Width Min. – Max.	Grille Height	Duct Diameter Min. – Max.
10 – 48 (254 – 1219)	3 (76)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	4 (102)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	6 (152)	8 – 36 (203 – 914)
10 – 48 (254 – 1219)	8 (203)	10 – 36 (254 – 914)
10 – 48 (254 – 1219)	10 (254)	12 – 36 (305 – 914)
12 – 36 (305 – 914)	12 (305)	14 – 36 (356 – 914)

HOW TO SPECIFY

MODEL SERIES: 5100C

ALUMINUM CURVED SPIRAL DUCT GRILLES

SUGGESTED SPECIFICATION:

51DVC, 51DHC Double Deflection

Furnish and install **Nailor Model** (select one) **51DVC** or **51DHC Double Deflection Curved Spiral Duct Supply Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a dual set of extruded aluminum "teardrop" blades spaced on 3/4" (19) centers. The frame shall be made from a single piece aluminum design that is rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

51SVC, 51SHC Single Deflection

Furnish and install **Nailor Model** (select one) **51SVC** or **51SHC Single Deflection Curved Spiral Duct Supply Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a single set of extruded aluminum "teardrop" blades spaced on 3/4" (19) centers. The frame shall be made from a single piece aluminum design that is rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

51PRC Perforated Face

Furnish and install **Nailor Model 51PRC Perforated Face Curved Spiral Duct Supply or Return Grilles** of the type and size as shown on the plans and air distribution schedules. The perforated face shall have 3/16" (5) dia. holes on staggered 1/4" (6) centers providing 51% free area. The frame shall be made from a single piece aluminum design that is rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

5145HC, 5155HC 45° Deflection

Furnish and install **Nailor Model** (select one) **5145HC** or **5155HC Fixed Blade 45° Deflection Curved Spiral Duct Return Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a single set of roll formed blades on 3/4" (19) or 1/2" (13) centers. The frame shall be made from aluminum and rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

HOW TO ORDER

MODEL SERIES: 6100C

STEEL CURVED SPIRAL DUCT GRILLES

EXAMPLE: 61DVC - 12 x 6 - 12 - S - AW - A - DEX

1. Models

Supply Double Deflection:

- 61DVC Vertical Front Blades,
3/4" (19) Spacing
- 61DHC Horizontal Front Blades,
3/4" (19) Spacing

Supply Single Deflection:

- 61SVC Vertical Blades,
3/4" (19) Spacing
- 61SHC Horizontal Blades,
3/4" (19) Spacing

Return:

- 61PRC Perforated Face
- 6145HC 45° Deflection,
3/4" (19) Spacing
- 6155HC 45° Deflection,
1/2" (13) Spacing

2. Nominal Width x Height

inches (mm)

3. Duct Diameter

inches

06 through 36 (in 2" increments)

4. Frame/Border Type

S Surface Mount (default)

5. Finish

- AW Appliance White (default)
- AL Aluminum
- BK Black
- BW British White
- LBP Light Bronze Paint
- MBP Medium Bronze Paint
- DBP Dark Bronze Paint
- MI Mill
- PC Prime Coat
- SP Special Custom Color

6. Fastening

- A Screw Holes (default)
- N None

7. Damper/Extractor

- None (standard) (default)
- DEX Damper/Extractor

Notes:

1. Nailor recommends the selection of vertical front blades on supply models for the majority of applications.
2. Refer to "Available Sizes" table for grille height/duct diameter limitations.
3. Not available in fractional or metric sizes.
4. For a standard grille with no special requirements, the "default" will automatically be selected. For example, a double deflection grille with vertical front blades is Model 61DVC. Unit will be supplied with screw holes and AW Appliance White finish.

Available Sizes

Grille Width Min. – Max.	Grille Height	Duct Diameter Min. – Max.
10 – 48 (254 – 1219)	3 (76)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	4 (102)	6 – 36 (152 – 914)
10 – 48 (254 – 1219)	6 (152)	8 – 36 (203 – 914)
10 – 48 (254 – 1219)	8 (203)	10 – 36 (254 – 914)
10 – 48 (254 – 1219)	10 (254)	12 – 36 (305 – 914)
12 – 36 (305 – 914)	12 (305)	14 – 36 (356 – 914)

HOW TO SPECIFY

MODEL SERIES: 6100C

STEEL CURVED SPIRAL DUCT GRILLES

SUGGESTED SPECIFICATION:

61DVC, 61DHC Double Deflection

Furnish and install **Nailor Model** (select one) **61DVC** or **61DHC Double Deflection Curved Spiral Duct Supply Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a dual set of "teardrop" blades spaced on 3/4" (19) centers. The frame shall be corrosion-resistant steel and rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

61SVC, 61SHC Single Deflection

Furnish and install **Nailor Model** (select one) **61SVC** or **61SHC Single Deflection Curved Spiral Duct Supply Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a single set of "teardrop" blades spaced on 3/4" (19) centers. The frame shall be corrosion-resistant steel and rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

61PRC Perforated Face

Furnish and install **Nailor Model 61PRC Perforated Face Curved Spiral Duct Supply or Return Grilles** of the type and size as shown on the plans and air distribution schedules. The perforated face shall have 3/16" (5) dia. holes on staggered 1/4" (6) centers providing 51% free area. The frame shall be made from corrosion-resistant steel and rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

(Optional) Damper/Extractor (DEX), constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

6145HC, 6155HC 45° Deflection

Furnish and install **Nailor Model** (select one) **6145HC** or **6155HC Fixed Blade 45° Deflection Curved Spiral Duct Return Grilles** of the type and size as shown on the plans and air distribution schedules. The grilles shall have a single set of roll formed blades on 3/4" (19) or 1/2" (13) centers. The frame shall be made from corrosion-resistant steel and rolled to match the specified radius. The finish shall be AW Appliance White (optional finishes are available).

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

STEEL CURVED SPIRAL DUCT GRILLES

- LINEAR SLOT FACE
- TRUE FULL RADIUS DESIGN
- SUPPLY



Model 61L10C

Models:

- 61L50C** 1/2" (13) Slot
- 61L75C** 3/4" (19) Slot
- 61L10C** 1" (25) Slot

Models 61L50C, 61L75C and 61L10C Curved Spiral Duct Supply Grilles are for use in exposed spiral duct applications requiring maximum flexibility. This linear grille provides stable diffusion under large amounts of air with both constant and changing load conditions. The volume and direction of the discharge air can be adjusted by moving the pattern controllers.

The innovative design incorporates a unique rolled to match the required duct radius. The grille frame mounts flush with the spiral duct and thus reduces the labor and installation cost by eliminating the need to fabricate stand-off saddles.

STANDARD FEATURES:

- Custom fabricated to fit only a single duct diameter.
- Furnished with Type A screw holes and mounting screws as standard.
- A thick foam gasket is provided to ensure a tight seal to duct.

CONSTRUCTION MATERIAL:

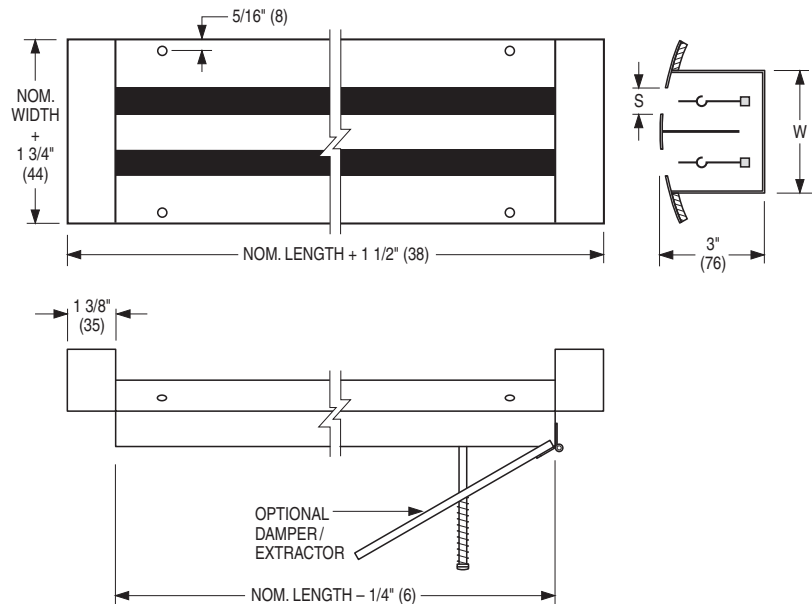
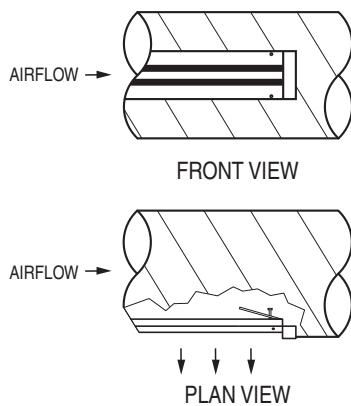
- Unique, corrosion-resistant steel frame design with a 1 3/8" (35) face border rolled to match required duct radius.
- Extruded aluminum adjustable "wiper blade" pattern controllers with gasket edge seal.

FINISH OPTIONS:

- Standard finish is AW Appliance White finish with BK black pattern controllers. Other finishes are available.

OPTIONS AND ACCESSORIES:

- DEX Damper/Extractor is available.



Standard No. of Slots: 1, 2, 3 or 4

Available Lengths:

12" through 72" (nominal 1" [25] increments only)

Available Sizes

No. of Slots	61L50C		61L75C		61L10C	
	S = 1/2" (13)		S = 3/4" (19)		S = 1" (25)	
	W	Duct Dia. Min. - Max.	W	Duct Dia. Min. - Max.	W	Duct Dia. Min. - Max.
1	1 3/4 (44)	6 - 36 (152 - 914)	2 (51)	6 - 36 (152 - 914)	2 1/4 (57)	6 - 36 (152 - 914)
2	3 (76)	6 - 36 (152 - 914)	3 1/2 (89)	6 - 36 (152 - 914)	4 (102)	6 - 36 (152 - 914)
3	4 1/4 (108)	8 - 36 (203 - 914)	5 (127)	8 - 36 (203 - 914)	5 3/4 (146)	8 - 36 (203 - 914)
4	5 1/2 (140)	8 - 36 (203 - 914)	6 1/2 (165)	10 - 36 (254 - 914)	7 1/2 (191)	10 - 36 (254 - 914)

W = Nominal Width (duct opening)

* Opening = Nominal + 1/4" (6) with DEX Damper/Extractor option.

S = Slot Width

Duct diameters in even sizes only.

Important:

Grilles are custom fabricated to fit only a single specified duct diameter.

PERFORMANCE DATA:

CURVED SPIRAL DUCT LINEAR SLOT • "WIPER BLADE" PATTERN CONTROLLERS

MODEL: 61L50C • 1/2" (13) SLOT WIDTH

Slot	Airflow, CFM per Ft.	5	10	15	20	25	30	35	40
1 Slot	Static Pressure	.003	.014	.027	.051	.083	.116	.158	.215
	Noise Criteria	-	-	-	-	16	21	25	28
	Throw	1-1-2	2-3-6	3-5-9	4-6-11	4-6-12	4-7-13	5-7-14	5-8-15
2 Slot	Airflow, CFM per Ft.	10	20	30	40	50	60	70	80
	Static Pressure	.003	.014	.027	.051	.083	.116	.158	.215
	Noise Criteria	-	-	-	-	18	24	28	31
3 Slot	Airflow, CFM per Ft.	15	30	45	60	75	90	105	120
	Static Pressure	.003	.14	.027	.051	.083	.116	.158	.215
	Noise Criteria	-	-	-	16	21	26	30	33
4 Slot	Airflow, CFM per Ft.	20	40	60	80	100	120	140	160
	Static Pressure	.003	.014	.027	.051	.083	.116	.158	.215
	Noise Criteria	-	-	-	17	22	27	31	34
Throw		2-3-6	4-6-11	5-8-16	7-10-20	7-11-22	8-12-24	9-13-26	10-15-29

MODEL: 61L75C • 3/4" (19) SLOT WIDTH

Slot	Airflow, CFM per Ft.	5	10	20	25	30	35	40	50
1 Slot	Static Pressure	.003	.012	.026	.042	.065	.092	.125	.174
	Noise Criteria	-	-	-	-	16	20	23	28
	Throw	1-1-2	2-3-6	3-5-10	4-6-12	4-7-13	5-7-14	5-8-15	5-8-16
2 Slot	Airflow, CFM per Ft.	10	20	40	50	60	70	80	100
	Static Pressure	.003	.012	.026	.042	.065	.092	.125	.174
	Noise Criteria	-	-	-	-	19	23	26	31
3 Slot	Airflow, CFM per Ft.	15	30	60	75	90	105	120	150
	Static Pressure	.003	.12	.026	.042	.065	.092	.125	.174
	Noise Criteria	-	-	-	16	21	25	28	33
4 Slot	Airflow, CFM per Ft.	20	40	80	100	120	140	160	200
	Static Pressure	.003	.012	.026	.042	.065	.092	.125	.174
	Noise Criteria	-	-	-	17	22	26	29	34
Throw		2-3-5	4-6-11	6-9-18	7-11-21	9-13-25	9-14-27	10-15-30	11-16-31

NC Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6
Supply	- 3	- 1	0	+ 1	+ 2
Return	0	+ 2	+ 3	+ 3	+ 4

Throw Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6
Multiplier	0.70	0.85	1.0	1.125	1.25

Performance Notes:

- All pressures are in inches w.g..
- Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions. Exposed duct (no ceiling effect).
- Horizontal throws are based on the same direction of all slots. Pattern controllers set in upright (non-directing) position.
- Throw values are based on a 4 ft. section. For other lengths, use the correction factors table above.
- Noise Criteria (NC) values are based on a room absorption of 10 dB, re 10⁻¹² watts. Dash (-) in space denotes a NC level of less than 15.
- Noise Criteria are based on a 4 ft. section, horizontal throw. For other lengths, use the correction factors table above.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

PERFORMANCE DATA:

CURVED SPIRAL DUCT LINEAR SLOT • "WIPER BLADE" PATTERN CONTROLLERS

MODEL: 61L10C • 1" (25) SLOT WIDTH

	Airflow, CFM per Ft.	10	15	25	30	40	50	55	65
1 Slot	Static Pressure	.002	.009	.024	.038	.057	.082	.113	.148
	Noise Criteria	-	-	-	-	19	24	27	31
	Throw	1-1-2	3-4-8	4-6-12	4-7-13	5-8-15	5-8-16	6-9-17	6-9-18
2 Slot	Airflow, CFM per Ft.	20	30	50	60	80	100	110	130
	Static Pressure	.002	.009	.024	.038	.057	.082	.113	.148
	Noise Criteria	-	-	-	15	22	27	30	34
3 Slot	Airflow, CFM per Ft.	30	45	75	90	120	150	165	195
	Static Pressure	.002	.009	.024	.038	.057	.082	.113	.148
	Noise Criteria	-	-	-	17	24	29	32	36
4 Slot	Airflow, CFM per Ft.	40	60	100	120	160	200	220	260
	Static Pressure	.002	.009	.024	.038	.057	.082	.113	.148
	Noise Criteria	-	-	-	19	25	30	33	37
	Throw	2-4-7	4-7-13	7-11-21	9-13-26	10-15-29	10-15-30	12-17-34	12-18-36

NC Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6
Supply	- 3	- 1	0	+ 1	+ 2
Return	0	+ 2	+ 3	+ 3	+ 4

Throw Correction Factors for Various Lengths

Length (ft.)	2	3	4	5	6
Multiplier	0.70	0.85	1.0	1.125	1.25

Performance Notes:

1. All pressures are in inches w.g..
2. Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions. Exposed duct (no ceiling effect).
3. Horizontal throws are based on the same direction of all slots. Pattern controllers set in upright (non-directing) position.

4. Throw values are based on a 4 ft. section. For other lengths, use the correction factors table above.
5. Noise Criteria (NC) values are based on a room absorption of 10 dB, re 10⁻¹² watts. Dash (-) in space denotes a NC level of less than 15.

6. Noise Criteria are based on a 4 ft. section, horizontal throw. For other lengths, use the correction factors table above.
7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

HOW TO ORDER OR TO SPECIFY

MODEL SERIES: 61LC

STEEL CURVED SPIRAL DUCT LINEAR SLOT GRILLES

EXAMPLE: 61L75C - 24 x 2 - 12 - S - AW - A - DEX

1. Models

Supply:

- 61L50C 1/2" (13) Linear Slot
- 61L75C 3/4" (19) Linear Slot
- 61L10C 1" (25) Linear Slot

2. Nominal Length

- 12 through 72"
- (nominal 1" [25] increments only)

3. No. of Slots

- 1 through 4

4. Duct Diameter

- inches
- 06 through 36 (in 2" [51] increments)

5. Frame/Border Type

- S Surface Mount (default)

6. Finish

- AW Appliance White (default)
- AL Aluminum
- BK Black
- BW British White
- LBP Light Bronze Paint
- MBP Medium Bronze Paint
- DBP Dark Bronze Paint
- MI Mill
- PC Prime Coat
- SP Special Custom Color

7. Fastening

- A Screw Holes (default)
- N None

8. Damper/Extractor

- Standard (default) None
- DEX Damper/Extractor

Notes:

1. Refer to table for duct diameter limitations.
2. Not available in fractional or metric sizes.
3. For a standard grille without any special requirements, the "default" will automatically be selected. For example, a linear with a 3/4" (19) slot is Model 61L75C. Unit will be supplied with screw holes and AW Appliance White finish.

GRILLES AND REGISTERS

F

MODEL SERIES: 61LC

STEEL CURVED SPIRAL DUCT SUPPLY LINEAR SLOT

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **61L10C (1", [25] slot)**, **61L75C (3/4", [19] slot)** or **61L50C (1/2", [13] slot)** of the sizes and capacities as shown on the plans and air distribution schedules. The linear shall be supplied in 1 – 4 slots wide as specified. The frame shall be corrosion-resistant steel and rolled to match the specified radius. The pattern deflectors shall have an aerodynamic 'ice tong' shape that can be adjusted to regulate the volume and direction of the airflow. The pattern deflector finish shall be black. The frame is to be AW Appliance White (optional finishes are available).

The manufacturer shall provide published performance data for the grille, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

DRUM LOUVERS 45DL SERIES

- HIGH CAPACITY
- LONG THROW
- ALUMINUM CONSTRUCTION

Models:

45DL1 Single Vanes

45DL2 Split Vanes

- Suffix '-O' adds a steel opposed blade damper



Models 45DL1-O and 45DL2

Model Series 45DL Drum Louvers are supply air outlets engineered for use in cooling, heating, and ventilating applications requiring long throws and accurate directional control of conditioned air in large enclosed spaces where ductwork cannot be brought close to the occupants. Typically, they are used in sport arenas, exhibition halls, manufacturing and industrial plants, office building entrances, lobbies, shopping malls and atriums.

Model Series 45DL Drum Louvers are designed to provide jet or diffused air patterns in ceiling, sidewall and exposed duct applications. In sidewall and exposed duct installations, the Model Series 45DL can be mounted vertically or horizontally.

Model Series 45DL are ideal for vertical spot cooling or heating when mounted in the ceiling or on the bottom of exposed ductwork. They are capable of supplying straight flow primary air jet streams at 0° deflection for long throws, and a diffused pattern of primary air at 15° and 30° deflections for shorter throws and greater spread. There is a difference of approximately 35 percent in throw between jet and diffused air patterns. The cylindrical drum enables primary air to be directed horizontally or vertically within a 60° arc, and when coupled with the adjustable louvers provides accurate directional control of primary air for people, plant or product.

Model 45DL2 features a split-vane option. The individual vanes are separated by a central divider and may be adjusted in opposite directions to produce a 'counter flow' air pattern. This creates more rapid mixing of primary and room air and a further reduction in the length of throw. With this option you therefore have the utmost versatility for most applications.

STANDARD FEATURES:

- Rotating adjustable cylindrical drums are tightly pivoted to the end caps of the 1 1/4" (32) wide border frames and are supplied with 3/16" (5) diameter face screw mounting holes and a perimeter frame gasket.
- Felt seal around the rotating drum to minimize air leakage.
- Paddle-size deflection vanes are rear pivoted on nylon bushings in the rectangular drum opening, and tightly hold deflection angle settings regardless of duct velocity and pressure levels.
- The Drum Louver is rated for use at capacities ranging from 100 to 14,000 cfm.

- Sizes available are 6" (152), 10" (254), 12" (305) and 15" (381) in height and 9" (229) through 72" (1829) in width. See dimensional data on next page for available increments.

CONSTRUCTION MATERIAL:

- High quality, extruded aluminum construction.
- An optional opposed blade damper is available with a screwdriver slot operator accessible through the discharge opening. However, they are not recommended where the static pressure drop across the drum louver exceeds 0.25" w.g.. Under these conditions balancing should be performed by a remote damper installed in the take-off.

FINISH OPTIONS:

- AW Appliance White finish is standard. Other finishes are available.

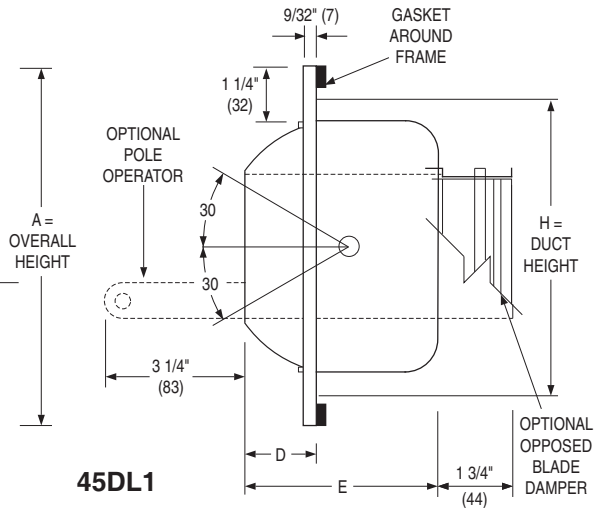
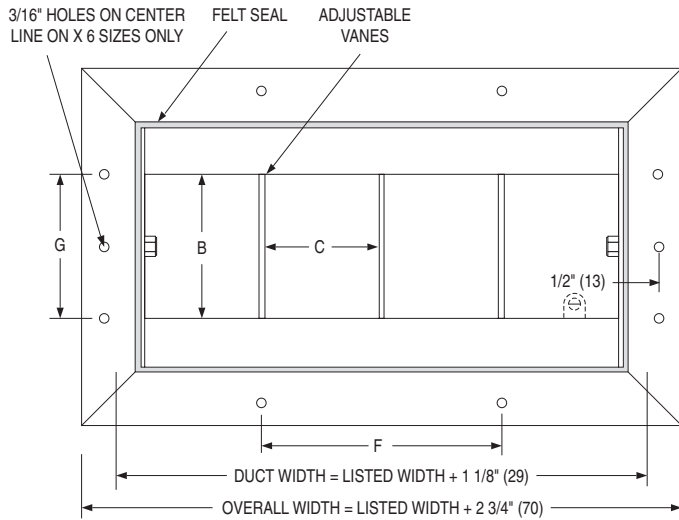
OPTIONS AND ACCESSORIES:

- PB Pole Operator is available to allow directional control of airflow in remote mounted locations

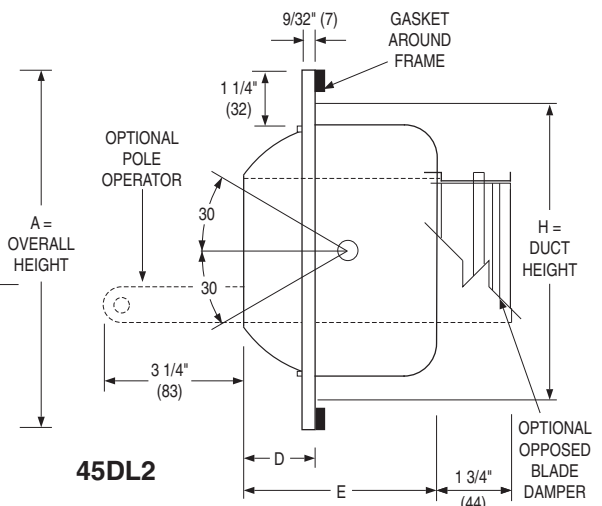
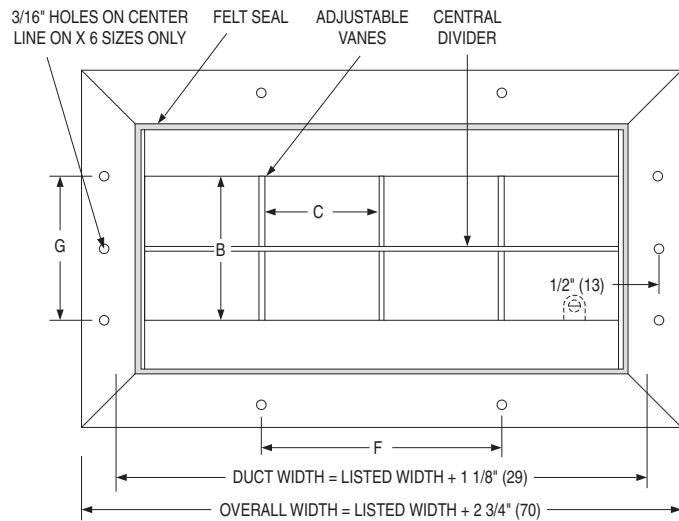
For additional options and accessories, see page F191.

DIMENSIONAL DATA:

DRUM LOUVERS • MODEL SERIES: 45DL



45DL1



45DL2

HEIGHT	6		10		12		15	
	W x H	NO. OF VANES	W x H	NO. OF VANES	W x H	NO. OF VANES	W x H	NO. OF VANES
LISTED SIZES NOMINAL WIDTH x HEIGHT IN INCHES	9 x 6	2	18 x 10	2	18 x 12	2	18 x 15	2
	12 x 6	3	24 x 10	3	24 x 12	3	24 x 15	3
	15 x 6	4	30 x 10	4	30 x 12	4	30 x 15	4
	18 x 6	5	36 x 10	5	36 x 12	5	36 x 15	5
	24 x 6	7	42 x 10	6	42 x 12	6	42 x 15	6
	30 x 6	9	48 x 10	7	48 x 12	7	48 x 15	7
	36 x 6	11	54 x 10	8	54 x 12	8	54 x 15	8
	48 x 6	15	60 x 10	9	60 x 12	9	60 x 15	9
	54 x 6	17	66 x 10	10	66 x 12	10	66 x 15	10
60 x 6	19	72 x 10	11	72 x 12	11	72 x 15	11	

DIMENSIONS IN INCHES (MM)	H	6 7/8 (175)	10 1/2 (267)	12 1/2 (3188)	15 1/2 (384)
	A	8 1/2 (216)	12 1/8 (308)	14 1/8 (359)	17 1/8 (435)
	B	3 3/8 (86)	5 3/8 (137)	6 3/8 (162)	9 3/8 (238)
	C	3 (76)	6 (152)	6 (152)	6 (152)
	D	1 11/16 (43)	2 21/32 (67)	3 9/32 (83)	3 3/4 (95)
	E	4 1/2 (114)	6 1/4 (159)	7 1/8 (181)	8 3/4 (222)
	F	6 (152)	6 (152)	6 (152)	6 (152)
	G	-	6 (152)	6 (152)	9 (229)

PERFORMANCE DATA:

MODEL SERIES: 45DLC SPIRAL DUCT DRUM LOUVER AND 45DL DRUM LOUVER • 6" (152)

SIZE	Neck Velocity, FPM Velocity Pressure	280 .005	420 .011	560 .020	700 .031	840 .044	980 .060	1120 .078	1400 .122	1680 .176
9 x 6	Airflow, CFM	105	158	210	263	315	368	420	525	630
	Total Pressure	.022	.06	.10	.16	.21	.30	.40	.60	.90
	Throw	7-10-18	10-14-24	13-18-30	15-21-35	17-23-40	20-28-46	22-30-50	26-35-56	30-40-66
	Noise Criteria	–	–	–	22	27	32	36	41	46
12 x 6	Airflow, CFM	140	210	280	350	420	490	560	700	840
	Total Pressure	.03	.06	.10	.16	.23	.32	.40	.63	.90
	Throw	8-11-18	12-16-27	16-21-34	18-24-40	20-26-45	23-31-50	25-34-55	30-40-66	35-47-76
	Noise Criteria	–	–	–	23	28	33	37	42	47
18 x 6	Airflow, CFM	210	315	420	525	630	735	840	1050	1260
	Total Pressure	.022	.06	.10	.16	.24	.33	.40	.60	.90
	Throw	12-16-27	17-22-36	21-27-45	25-32-52	28-37-62	31-42-70	34-46-76	42-54-90	48-62-101
	Noise Criteria	–	–	–	24	29	34	38	43	49
24 x 6	Airflow, CFM	280	420	560	700	840	980	1120	1400	1680
	Total Pressure	.03	.06	.10	.16	.24	.32	.40	.63	.90
	Throw	16-21-33	21-28-44	26-33-54	31-40-64	35-45-72	38-50-80	42-52-88	48-64-100	52-71-110
	Noise Criteria	–	–	–	26	31	36	40	47	52
30 x 6	Airflow, CFM	350	525	700	875	1050	1225	1400	1750	2100
	Total Pressure	.022	.06	.10	.16	.21	.32	.40	.63	.90
	Throw	19-24-38	25-32-50	30-38-60	35-45-70	39-50-78	43-56-86	47-60-94	54-70-100	60-78-120
	Noise Criteria	–	–	20	27	32	37	41	48	53
36 x 6	Airflow, CFM	420	630	840	1050	1260	1470	1680	2100	2520
	Total Pressure	.03	.06	.10	.16	.22	.30	.40	.60	.90
	Throw	20-26-40	26-35-54	32-41-64	36-46-74	40-52-82	44-55-90	48-62-100	54-72-115	62-80-130
	Noise Criteria	–	–	21	28	33	38	42	49	55
48 x 6	Airflow, CFM	565	848	1130	1412	1695	1978	2260	2825	3390
	Total Pressure	.03	.06	.10	.16	.24	.32	.40	.63	.90
	Throw	24-31-39	31-42-63	37-49-76	44-56-89	48-62-100	50-70-110	58-74-120	65-82-130	74-95-150
	Noise Criteria	–	–	22	29	34	39	43	50	56
60 x 6	Airflow, CFM	700	1050	1400	1750	2100	2450	2800	3500	4200
	Total Pressure	.03	.06	.10	.16	.24	.32	.40	.63	.90
	Throw	28-36-54	34-46-66	43-55-84	49-63-96	52-70-110	60-75-120	65-82-130	75-90-150	84-105-170
	Noise Criteria	–	–	23	30	35	40	44	51	57

Performance Notes:

- All pressures are in inches w.g..
- Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- Total pressure, throw and Noise Criteria are based on 45DL1 at 0° deflection. Correction factors for other conditions are listed in the chart.

- Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts. Dash (–) in space indicates an Noise Criteria of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Correction Factor

Model	Deflection	TP	Throw	NC
45DL1	15°	x 1.5	x .85	+ 4
	30°	x 1.9	x .73	+ 9
45DL2	0°	x 1.3	—	—
	15°	x 1.7	x .85	+ 4
	30°	x 2.2	x .73	+ 9

PERFORMANCE DATA:

MODEL SERIES: 45DLC SPIRAL DUCT DRUM LOUVER AND 45DL DRUM LOUVER • 10" (254)

SIZE	Neck Velocity, FPM Velocity Pressure	270 .005	400 .012	536 .018	670 .028	800 .040	940 .055	1075 .072	1340 .112	1610 .162
18 x 10	Airflow, CFM	336	504	672	840	1008	1176	1344	1680	2016
	Total Pressure	.02	.05	.08	.10	.18	.19	.25	.40	.60
	Throw	15-20-32	21-28-45	26-35-52	32-42-64	34-44-74	36-50-78	44-54-90	48-65-100	54-72-110
	Noise Criteria	–	–	–	26	33	39	44	52	60
24 x 10	Airflow, CFM	450	675	900	1125	1350	1575	1800	2250	2700
	Total Pressure	.02	.05	.08	.13	.18	.20	.3	.45	.7
	Throw	19-25-40	25-35-52	30-42-64	35-46-74	38-52-80	44-54-94	50-65-100	54-72-110	64-82-125
	Noise Criteria	–	–	21	30	34	43	48	58	63
30 x 10	Airflow, CFM	560	840	1120	1400	1680	1960	2240	2800	3360
	Total Pressure	.02	.05	.08	.13	.18	.24	.31	.48	.7
	Throw	22-28-46	29-40-62	36-50-82	42-55-86	46-62-96	50-68-100	54-72-110	65-82-130	72-92-145
	Noise Criteria	–	–	23	31	38	46	50	58	64
36 x 10	Airflow, CFM	670	1005	1340	1675	2010	2345	2680	3350	4020
	Total Pressure	.02	.04	.08	.13	.18	.25	.32	.48	.70
	Throw	23-32-52	30-43-68	36-50-82	44-60-100	50-68-105	56-76-115	60-80-120	70-90-140	80-115-180
	Noise Criteria	–	–	25	35	40	47	52	60	69
42 x 10	Airflow, CFM	785	1177	1570	1962	2355	2748	3140	3925	4710
	Total Pressure	.02	.05	.08	.13	.19	.26	.34	.52	.75
	Throw	25-34-54	32-45-70	40-54-86	46-62-100	54-72-110	60-80-120	66-86-140	75-100-150	88-115-180
	Noise Criteria	–	–	26	35	42	48	53	60	69
48 x 10	Airflow, CFM	895	1342	1790	2238	2685	3133	3580	4475	5370
	Total Pressure	.02	.04	.08	.13	.17	.24	.32	.48	.68
	Throw	26-34-58	33-48-73	43-58-94	53-74-108	56-76-116	60-80-120	66-90-140	78-105-150	90-110-180
	Noise Criteria	–	–	26	35	41	47	52	61	68
54 x 10	Airflow, CFM	1010	1515	2020	2525	3030	3535	4040	5050	6060
	Total Pressure	.02	.05	.08	.13	.17	.24	.31	.46	.68
	Throw	28-36-60	35-50-75	50-68-100	55-76-110	60-80-120	65-88-135	70-95-145	90-120-180	95-120-190
	Noise Criteria	–	–	27	35	42	48	53	61	68
60 x 10	Airflow, CFM	1120	1120	2240	2800	3360	3920	4480	5600	6720
	Total Pressure	.02	.05	.08	.13	.17	.23	.30	.46	.68
	Throw	28-36-60	40-54-72	50-68-100	58-76-120	65-84-130	70-92-140	78-100-150	90-120-180	100-13-190
	Noise Criteria	–	–	27	35	42	48	53	61	68
72 x 10	Airflow, CFM	1345	2018	2690	3362	4035	4707	5380	6725	8070
	Total Pressure	.02	.05	.08	.13	.19	.26	.35	.52	.75
	Throw	34-44-72	44-58-90	54-70-110	62-82-130	70-92-140	78-100-160	85-110-170	98-130-200	110-140-230
	Noise Criteria	–	–	28	37	44	48	54	63	70

Performance Notes:

1. All pressures are in inches w.g..
2. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
3. Total pressure, throw and Noise Criteria are based on 45DL1 at 0° deflection. Correction factors for other conditions are listed in the chart.

5. Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts. Dash (–) in space indicates an Noise Criteria of less than 15.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Correction Factor

Model	Deflection	TP	Throw	NC
45DL1	15°	x 1.5	x .85	+ 4
	30°	x 1.9	x .73	+ 9
45DL2	0°	x 1.3	—	—
	15°	x 1.7	x .85	+4
	30°	x 2.2	x .73	+9

PERFORMANCE DATA:

MODEL SERIES: 45DLC SPIRAL DUCT DRUM LOUVER AND 45DL DRUM LOUVER • 12" (305)

SIZE	Neck Velocity, FPM Velocity Pressure	265 .004	400 .010	530 .018	660 .027	795 .039	930 .054	1060 .070	1325 .109	1600 .160
18 x 12	Airflow, CFM	400	600	800	1000	1200	1400	1600	2000	2400
	Total Pressure	.033	.08	.14	.22	.30	.44	.55	.86	1.04
	Throw	14-20-34	19-27-46	24-34-60	30-40-70	35-47-78	38-56-95	44-60-100	50-70-120	55-80-130
	Noise Criteria	–	–	–	25	32	36	40	47	52
24 x 12	Airflow, CFM	530	795	1060	1325	1590	1855	2120	2650	3180
	Total Pressure	.03	.07	.13	.20	.29	.42	.53	.82	1.10
	Throw	17-24-42	24-34-54	26-37-64	35-47-78	38-56-95	45-65-110	52-72-120	65-85-140	72-98-160
	Noise Criteria	–	–	–	27	32	35	40	46	52
30 x 12	Airflow, CFM	665	998	1330	1662	1993	2328	2660	3324	3990
	Total Pressure	.03	.06	.10	.14	.21	.28	.35	.58	.80
	Throw	18-25-44	26-37-64	33-45-76	37-54-90	45-65-110	50-70-120	58-80-130	67-92-155	85-110-180
	Noise Criteria	–	–	21	27	32	38	40	48	54
36 x 12	Airflow, CFM	800	1200	1600	2000	2400	2800	3200	4000	4800
	Total Pressure	.03	.05	.08	.12	.17	.22	.30	.46	.63
	Throw	22-31-54	30-44-74	38-54-90	46-64-110	50-70-120	58-80-135	65-90-150	78-105-180	90-120-200
	Noise Criteria	–	–	22	28	34	38	42	50	55
42 x 12	Airflow, CFM	930	1395	1860	2325	2790	3255	3720	4650	5580
	Total Pressure	.03	.05	.10	.16	.22	.31	.40	.62	.80
	Throw	25-35-60	34-46-80	44-58-100	50-70-120	58-80-130	65-90-150	75-100-170	85-115-200	100-140-230
	Noise Criteria	–	–	26	31	35	41	45	52	55
48 x 12	Airflow, CFM	1065	1598	2130	2663	3195	3728	4260	5326	6390
	Total Pressure	.03	.06	.08	.14	.20	.28	.36	.56	.80
	Throw	25-33-53	35-46-80	44-56-96	52-70-115	58-78-125	60-98-150	75-100-170	88-120-210	100-140-230
	Noise Criteria	–	–	26	31	36	41	45	52	55
54 x 12	Airflow, CFM	1200	1800	2400	3000	3600	4200	4800	6000	7200
	Total Pressure	.03	.06	.11	.17	.25	.34	.42	.68	.95
	Throw	28-37-65	37-50-88	46-62-108	56-75-130	65-85-145	72-98-160	80-105-180	95-125-220	110-150-250
	Noise Criteria	–	–	24	31	36	41	45	52	55
60 x 12	Airflow, CFM	1350	2025	2700	3375	4050	4725	5400	6750	8100
	Total Pressure	.03	.06	.11	.17	.22	.30	.38	.58	.83
	Throw	28-37-65	42-56-100	47-63-110	54-74-130	64-84-150	72-100-170	80-110-190	92-120-240	110-140-260
	Noise Criteria	–	–	20	28	33	37	42	48	54
72 x 12	Airflow, CFM	1600	2400	3200	4000	4800	9600	6400	8000	9600
	Total Pressure	.03	.06	.11	.17	.22	.83	.38	.58	.83
	Throw	32-42-72	42-54-100	52-72-120	62-74-140	72-100-170	120-160-290	92-120-240	110-140-260	120-160-290
	Noise Criteria	–	–	25	31	36	55	45	52	55

Performance Notes:

- All pressures are in inches w.g..
- Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- Total pressure, throw and Noise Criteria are based on 45DL1 at 0° deflection. Correction factors for other conditions are listed in the chart.

- Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts. Dash (–) in space indicates an Noise Criteria of less than 15.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Correction Factor

Model	Deflection	TP	Throw	NC
45DL1	15°	x 1.5	x .85	+ 4
	30°	x 1.9	x .73	+ 9
45DL2	0°	x 1.3	—	—
	15°	x 1.7	x .85	+4
	30°	x 2.2	x .73	+9

PERFORMANCE DATA:

MODEL SERIES: 45DLC SPIRAL DUCT DRUM LOUVER AND 45DL DRUM LOUVER • 15" (381)

SIZE	Neck Velocity, FPM Velocity Pressure	312 .006	470 .014	625 .024	780 .038	935 .054	1090 .074	1250 .097	1560 .152	1870 .218
18 x 15	Airflow, CFM	585	878	1170	1463	1755	2048	2340	2925	3510
	Total Pressure	.02	.05	.09	.14	.21	.27	.36	.55	.82
	Throw	15-21-36	21-30-52	28-40-67	32-45-75	37-51-94	42-59-100	47-65-110	58-82-140	66-92-160
	Noise Criteria	–	–	22	28	33	38	42	49	54
24 x 15	Airflow, CFM	780	1170	1560	1950	2340	2730	3120	3900	4680
	Total Pressure	.02	.04	.08	.12	.19	.25	.34	.50	.68
	Throw	18-25-45	25-35-62	33-46-80	40-55-100	45-65-110	54-75-130	60-84-140	70-100-170	80-110-190
	Noise Criteria	–	–	22	28	34	39	43	50	55
30 x 15	Airflow, CFM	975	1463	1950	2438	2925	3413	3900	4875	5850
	Total Pressure	.02	.05	.08	.13	.20	.25	.34	.50	.72
	Throw	21-30-52	30-42-74	38-54-97	45-64-110	54-75-130	60-84-140	66-94-160	80-110-190	92-130-225
	Noise Criteria	–	–	22	29	35	40	44	51	56
36 x 15	Airflow, CFM	1170	1755	2340	2925	3510	4095	4680	5850	7020
	Total Pressure	.025	.05	.10	.15	.20	.26	.36	.55	.78
	Throw	23-33-58	32-45-80	40-56-100	47-65-110	56-76-130	62-88-150	70-100-170	80-110-190	110-130-220
	Noise Criteria	–	–	25	32	37	42	45	52	58
42 x 15	Airflow, CFM	1365	2048	2730	3413	4095	4778	5460	6825	8190
	Total Pressure	.02	.05	.10	.15	.22	.30	.38	.60	.85
	Throw	27-37-66	38-52-92	47-65-110	56-76-130	62-88-150	70-100-170	80-110-190	100-130-220	110-150-260
	Noise Criteria	–	–	25	31	36	41	44	51	57
48 x 15	Airflow, CFM	1565	2348	3130	3913	4695	5478	6260	7825	9390
	Total Pressure	.02	.05	.08	.13	.18	.25	.33	.50	.8
	Throw	28-40-70	40-55-100	50-70-120	60-82-140	70-98-160	80-110-190	90-130-220	110-150-260	120-180-300
	Noise Criteria	–	–	25	32	37	42	45	52	58
54 x 15	Airflow, CFM	1760	2640	3520	4400	5280	6160	7040	8800	10560
	Total Pressure	.025	.05	.10	.16	.21	.30	.40	.65	.85
	Throw	30-44-75	44-60-110	54-78-130	65-90-160	75-105-180	90-120-210	10-135-240	120-160-280	130-180-310
	Noise Criteria	–	–	26	32	37	42	45	52	58
60 x 15	Airflow, CFM	1950	2925	3900	4875	5850	6825	7800	9750	11700
	Total Pressure	.02	.045	.08	.12	.17	.25	.30	.50	.75
	Throw	34-45-76	44-60-110	54-78-130	65-90-160	75-105-180	90-120-210	10-135-240	120-160-280	130-180-310
	Noise Criteria	–	–	26	33	38	43	46	53	59
72 x 15	Airflow, CFM	2345	3518	4690	5863	7035	8208	9380	11725	14070
	Total Pressure	.02	.05	.10	.14	.20	.26	.33	.55	.80
	Throw	37-50-90	50-70-120	62-88-160	76-100-190	90-125-220	100-140-250	115-150-280	130-190-330	160-220-400
	Noise Criteria	–	–	27	34	39	44	47	54	60

Performance Notes:

1. All pressures are in inches w.g..
2. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
3. Total pressure, throw and Noise Criteria are based on 45DL1 at 0° deflection. Correction factors for other conditions are listed in the chart.

5. Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts. Dash (–) in space indicates an Noise Criteria of less than 15.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Correction Factor

Model	Deflection	TP	Throw	NC
45DL1	15°	x 1.5	x .85	+ 4
	30°	x 1.9	x .73	+ 9
45DL2	0°	x 1.3	—	—
	15°	x 1.7	x .85	+4
	30°	x 2.2	x .73	+9

HOW TO ORDER

MODEL SERIES: 45DLC

SPIRAL DUCT DRUM LOUVERS

EXAMPLE: 45DLC1 - 24 x 10 - 16 - S - AW - A - —

- | | |
|---|--|
| <ol style="list-style-type: none"> Models
45DLC1 Spiral Duct, Single Vanes
45DLC2 Spiral Duct, Split Vanes Width x Height
inches (mm) Duct Diameter
inches 10 through 36
(in 2" increments) Frame/Border Type
S Surface Mount (default) | <ol style="list-style-type: none"> Finish
AW Appliance White (default)
AL Aluminum
BK Black
BW British White
MI Mill
PC Prime Coat
SP Special Custom Color Fastening
A Screw Holes |
|---|--|

OPTIONS & ACCESSORIES:

- None (default)
- 7. **Pole Operator**
PB Pole Operator
- 8. **Damper / Extractor**
DEX Damper / Extractor (Air Scoop)

Available Sizes		
Grille Width Min. - Max.	Grille Height	Duct Dia. Min. - Max.
9" - 60"	6"	10" - 36"
18" - 60"	10"	14" - 36"
18" - 60"	12"	16" - 36"
18" - 60"	15"	20" - 36"

MODEL SERIES: 45DL

DRUM LOUVERS

EXAMPLE: 45DL1 - O - 24 x 10 - S - AW - A - —

- | | |
|---|--|
| <ol style="list-style-type: none"> Models
45DL1 Single Vanes
45DL2 Split Vanes Damper (OBD)
O With Steel Damper
— None Width x Height
inches (mm) Frame/Border Type
S Surface Mount (default) | <ol style="list-style-type: none"> Finish
AW Appliance White (default)
AL Aluminum
BK Black
BW British White
MI Mill
PPA Paint Prepared Aluminum
SP Special Custom Color Fastening
A Screw Holes |
|---|--|

OPTIONS & ACCESSORIES:

- None (default)
- 7. **Pole Operator**
PB Pole Operator

Notes:

- Damper not recommended where the static pressure drop across the drum louver exceeds 0.25" w.g..

HOW TO SPECIFY

MODELS: 45DLC1, 45DLC2, 45DL1, 45DL2

SPIRAL DUCT DRUM LOUVERS AND DRUM LOUVERS

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **45DLC1** or **45DLC2 Spiral Duct Drum Louvers** or **Nailor Model** (select one) **45DL1** or **45DL2 Drum Louvers** of the types and sizes as shown on the plans and air distribution schedules. The louver is to be manufactured from extruded aluminum and have a cylindrical adjustable drum that rotates. The blades are to have a paddle like profile that pivot on nylon bushings. A perimeter gasket is to be included around the frame and a felt seal is to be around the drum. The finish shall be AW Appliance White (optional finishes are available).

(Optional) An opposed blade damper, constructed of heavy gauge corrosion-resistant steel and operable from the face of the grille, shall be provided with all units.

The manufacturer shall provide published performance data for the louver, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 2006.

PRODUCT OVERVIEW OPTIONS AND ACCESSORIES FOR GRILLES AND REGISTERS

MOUNTING FRAMES

- Up to four methods of fastening available for most models.
- Sub-frame available for professionally finished openings.
- Surface mount adapter frame for plaster and sheet rock ceilings are available in steel and aluminum. They simplify installation, save time and allow ceiling plenum access.
- Panel mounting available to suit architectural ceiling systems.

OPTIONS

- A selection of optional items that are available on grilles and registers.
- Information on custom sizing for special applications.

FINISHES

- Selection of standard and non-standard finishes to choose from.
- Anodizing of aluminum products.

AIR BALANCING DEVICES

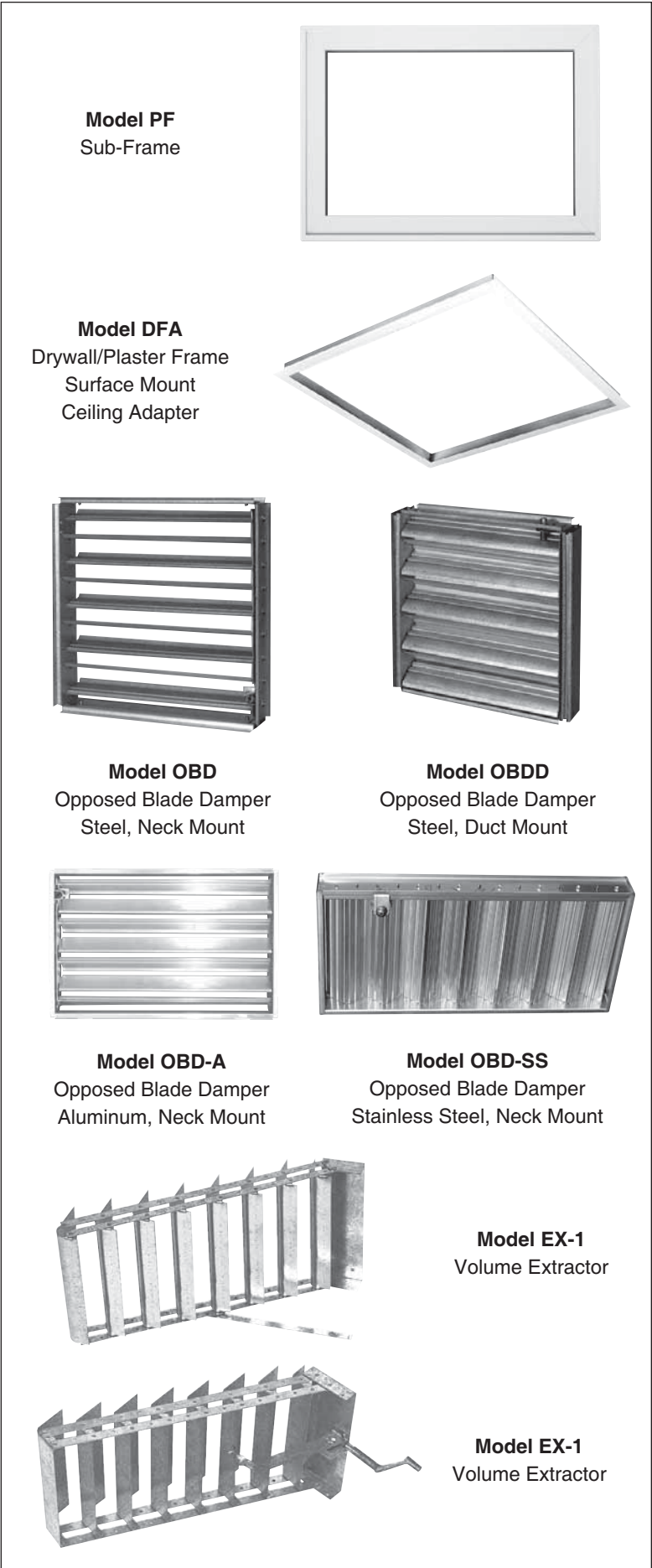
- Opposed blade dampers for every application.
- Volume extractors.

Effective air balancing of an HVAC System requires the correct selection, specification and installation of the right product to suit the system design.

Nailor offers a comprehensive range of models and options to cover all applications.

Nailor balancing devices are:

- Easy to select and specify. Many items can be supplied as factory mounted or packaged accessories on grilles and registers.
- Designed to offer a smooth, accurate and predictable response during adjustment for precise air metering.
- Designed to provide quick access and adjustment.
- Engineered with attention to optimizing airflow, in order to minimize noise, turbulence and pressure drop.



Options, Custom Sizing and Finishes

OPTIONS:

RACA Return Air Crosstalk Attenuator

Return Air Crosstalk Attenuator is designed to greatly reduce the amount of sound transferred from the return air plenum through open vents or return grilles, into the adjoining space.

EQT Earthquake Tabs

Earthquake (seismic) retaining safety tabs are available; factory installed on grilles or registers when required by local building code that units be independently restrained and safety wired to supporting structure.

GK Foam Gaskets

An optional foam gasket is available factory installed on the rear of all Type S corrosion-resistant steel and aluminum surface mount grilles and registers.

Eliminates air leakage and the possibility of dirt streaking and smudging from entrainment, particularly when installed on unevenly finished surfaces such as stucco.

IS Insect Screen

1/16" (2) galvanized steel mesh, factory installed.

CUSTOM SIZING:

Oversized Units

For specialized applications and architectural considerations; certain grilles and registers can be manufactured in single sections larger than the standard published maximum size at additional cost. Aspect ratio, tolerances, manufacturing capability and weight have all to be considered by the factory prior to acceptance. Consult your Nailor representative for specific applications.

Fractional/Hard Metric Sizes

Nailor grilles and registers have been designed and are manufactured to suit HVAC systems where the duct design has been done using Imperial Units of measurement (i.e. feet and inches). The majority of Nailor grilles and registers are fabricated as standard in 1" (25) nominal incremental units, giving the designer great flexibility during sizing selection.

At additional cost, the majority of Nailor grilles and registers can be custom fabricated in fractional sizes for special applications and in Hard Metric (S.I. Units) when the HVAC duct design has been done using the Metric System.

Consult your Nailor representative for availability on specific project applications.

FINISHES:

POWDER COAT

AW Appliance White (standard)

A white finish that is currently the industry standard. Closely matches standard finishes supplied by the majority of T-Bar ceiling system manufacturers. (No additional cost).

AL Aluminum

Contains suspended metal particles to give the appearance of a silver grey metallic or anodized finish. (No additional cost).

WH Off-White

Has a creamy appearance. (Additional cost)

BW British White

Matches most white ceiling tiles. (No additional cost)

LBP Light Bronze Paint

An economical alternative that closely matches industry standard anodizing in color, sheen and appearance. (Additional cost)

MBP Medium Bronze Paint

An economical alternative that closely matches industry standard anodizing in color, sheen and appearance. (Additional cost)

DBP Dark Bronze Paint

An economical alternative that closely matches industry standard anodizing in color, sheen and appearance. (Additional cost)

BK Black

This black has a matte finish. (Additional cost)

SP Special

The Nailor range of diffusers are available in any color for special architectural consideration. Custom colors are individually mixed to match customer supplied samples. (Additional cost)

ALUMINUM PRODUCT FINISHES:

SA Satin (Clear) Anodized

Adds a smooth satin finish to further protect the aluminum from corrosion (clear). (Additional cost)

STAINLESS STEEL PRODUCT FINISH ONLY:

#4 Brushed Satin Polished

Stainless Steel models only. (No additional cost)

ALSO AVAILABLE:

MI Mill Finish

(No additional cost).

PPA Paint Prepared Aluminum (Washed only)

(No additional cost).

PC Prime Coat Paint

Color will vary (Additional cost).

Volume Extractors

MODEL SERIES

EX Blades on 2" centers

EXD Blades on 1" centers

The **Model Series EX Volume Extractors** uniformly divert air from the main duct into the branch take-off and across the face of a grille or diffuser. Gang-operated parallel blades available on 2" (51) or 1" (25) centers pivot from full open to full closed with blades overlapping for shut-off. The curved blade design improves airflow by reducing turbulence, thereby reducing noise and pressure drop.

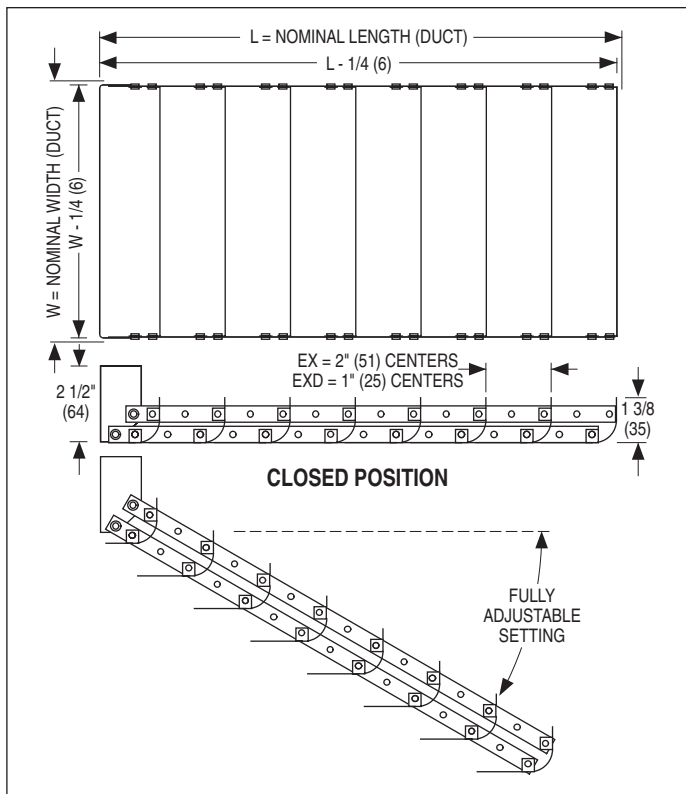
Specify or order: Length x Width. (Length is first dimension. Blades are parallel to width, second dimension).

FEATURES:

- Material: Galvanized steel.
- Minimum size: 6" x 4" (152 x 102).
- Maximum size: 36" x 36" (914 x 914).

Operator Types

<p>EX/EXD-1 Standard unit with adjusting strap.</p>	
<p>EX/EXD-1-R Rod operator for external operation.</p>	
<p>EX/EXD-2 Linkage with 7/16" (11) square hole (2 per unit). Remote operator (eg. Young Regulator #1) by others.</p>	
<p>EX/EXD-3 Screw gear operator. Adjusts with 3/16" (48) wrench (by others).</p>	



Optional Accessories

<p>RLD Locking device for Models EX/EXD-1-R.</p>	
--	--