

AIRFOIL BLADE — RETURN AIR

45° DEFLECTION, 3/4 (19) BLADE SPACING

The airfoil blades are fixed at a 45° angle. This grille is vision proof when installed in a low or high sidewall location with grille blade deflection facing away from the line of sight. In addition, a diverse selection of mounting frames are available to suit many suspended ceiling designs.

Aluminum – Models 7145H, 7145V

Page F79

Suffix '-O' adds a steel OBD

Suffix '-OA' adds an aluminum OBD

0° DEFLECTION, 3/4 (19) BLADE SPACING

The airfoil blades are fixed at a 45° angle. This grille is vision proof when installed in a low or high sidewall location with grille blade deflection facing away from the line of sight. In addition, a diverse selection of mounting frames are available to suit many suspended ceiling designs.

Aluminum – Models 71FH, 71FV

Page F79

Suffix '-O' adds a steel OBD

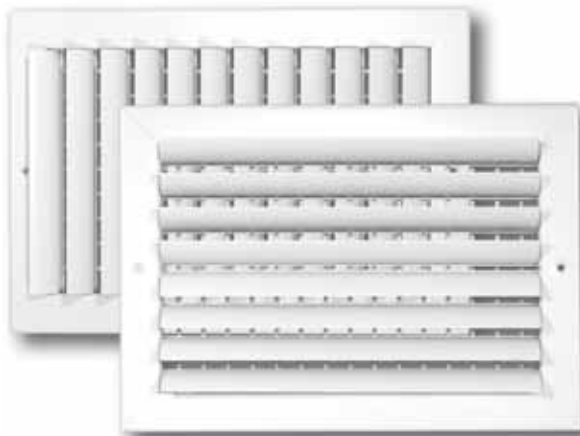
Suffix '-OA' adds an aluminum OBD



Models 71FH, 7145H

CURVED BLADE DIRECTIONAL GRILLES AND REGISTERS

Nailor's curved blade directional grilles and registers are designed to meet the demand for top quality and competitive prices. Constructed with extruded aluminum blades, this model series is unobtrusive in appearance for architectural excellence. The grilles and registers may be used in sidewall and ceiling applications. Optional opposed blade dampers have a screwdriver slot operator for adjustment through the face of the register. The 1 1/4" (32) frames have countersunk screw holes for an inconspicuous appearance.



Models 51CD, 61CD

CURVED BLADE WITH DEFLECTION VANES

The models in this series have individually adjustable curved blades that provide a true directional pattern. They also incorporate a set of rear adjustable vanes for complete directional control and flow equalization. They are available with one or two way directional throw.

Aluminum – Model 51CD

Page F86

Suffix '-O' adds a steel OBD

Suffix '-OA' adds an aluminum OBD

Steel – Model 61CD

Page F88

Suffix '-O' adds a steel OBD

CURVED BLADE WITHOUT DEFLECTION VANES

The models in this series have curved blades that provide a true directional pattern. There are twelve available patterns to choose from.

Aluminum – Model 51C

One and Two-Way

Page F86

Three and Four-Way

Page F87

Suffix '-O' adds a steel OBD

Suffix '-OA' adds an aluminum OBD

Steel – Model 61C

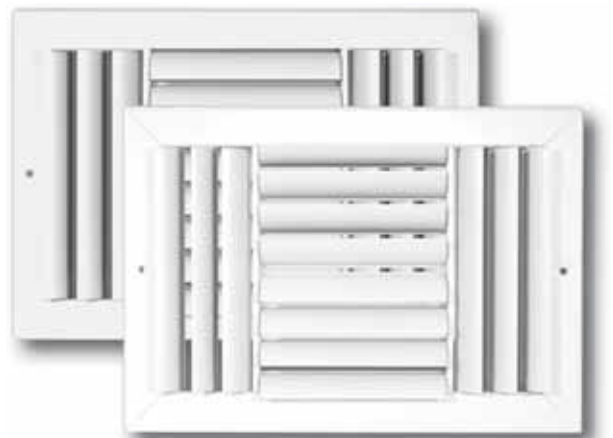
One and Two-Way

Page F88

Three and Four-Way

Page F89

Suffix '-O' adds a steel OBD



Models 51C, 61C

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.

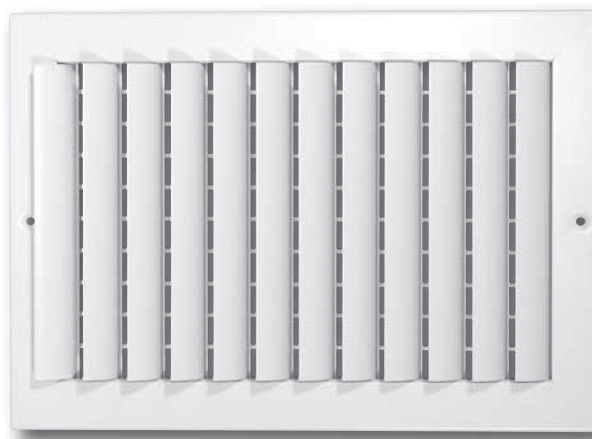
ALUMINUM CURVED BLADE GRILLES AND REGISTERS

• SUPPLY

Models:

51C and 51CD with One and Two-way Discharge Pattern

- Suffix '-O' adds a steel opposed blade damper
- Suffix '-OA' adds an aluminum opposed blade damper



Model 51CD (Pattern 1B)

Models 51C and 51CD are supply grilles and registers which incorporate individually adjustable curved blades. The blades can be positioned to provide one-way, two-way and two-way corner blow discharge air patterns. They are commonly used in ceiling and/or side wall locations and are recommended for use in both heating and cooling applications.

Both one-way and two-way pattern grilles can be adjusted to full or partial down-blow position. The curved streamlined blades are adjusted to a uniform partially closed position to deflect the air path horizontally while retaining an effective area capacity of 35% of the neck area. In the full down-blow position, grille effective area is increased to 75%.

STANDARD FEATURES:

- 1 1/4" (32) wide face border with a 1" (25) overlap margin standard, furnished with countersunk screw holes and mounting screws.

NF Narrow Frame with 1" (25) face border optional. Concealed mounting is optional.

- Adjustable pattern – grille blades easily adjustable to provide horizontal one-way or two-way air path from a ceiling location. Adjustable to a full down-blow position as required. Curved blades can be fixed to provide a non-adjustable horizontal air path if specified.

- Available from 6" x 4" to 36" x 36" (152 x 102 to 914 x 914).

CONSTRUCTION MATERIAL:

- High quality, extruded aluminum construction.

- Heavy gauge extruded aluminum margins, mechanically interlocked with reinforced mitered corners.

- Extruded blades – curved streamlined aluminum blades on 1" (25) centers. Blades formed with tenons to fit snugly into the side margin, friction loaded to firmly hold deflection setting.

- Steel or aluminum integral dampers are opposed blade design with a screwdriver slot operator.

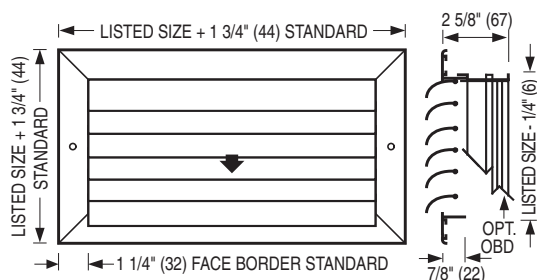
FINISH OPTIONS:

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

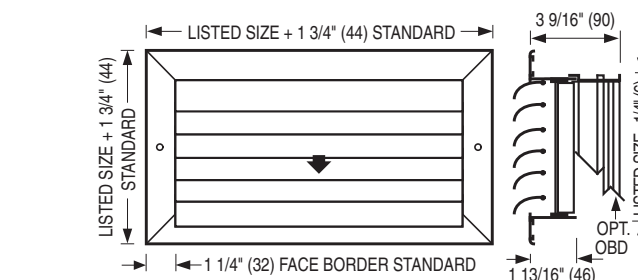
OPTIONS AND ACCESSORIES:

- IS Insect Screen
- PF Plaster Frame
- GK Foam Gasket
- EQT Earthquake Tabs

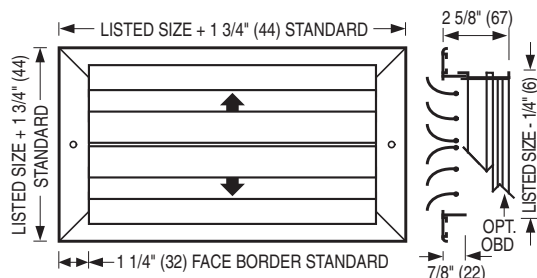
For additional options and accessories, see page F191.



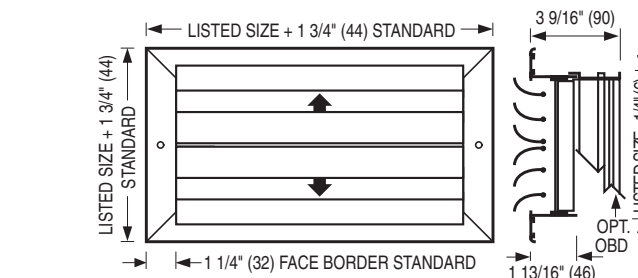
Model 51C One-way Blow (1A)



Model 51CD One-way Blow (1A) with Rear Directional Vanes



Model 51C Two-way Blow (2A)



Model 51CD Two-way Blow (2A) with Rear Directional Vanes

ALUMINUM CURVED BLADE GRILLES AND REGISTERS

- SUPPLY

Models:

51C with Three and Four-way Discharge Pattern

- Suffix '-O' adds a steel opposed blade damper
- Suffix '-OA' adds an aluminum opposed blade damper



Model 51C (Pattern 3A)

Model 51C Pattern 3A, 3B or 3C Supply Ceiling Grilles and Registers have individually adjustable curved blades arranged to provide a three-way ceiling air pattern. Model 51C Pattern 4A, 4B or 4C Supply Ceiling Grilles and Registers have individually adjustable curved blades arranged to provide a four-way ceiling air pattern. They are recommended for applications in ceiling locations for heating and cooling systems.

Both three-way and four-way pattern grilles can be adjusted to full or partial down-blow position. The curved streamlined blades are adjusted to a uniform partially closed position to deflect the air path horizontally while retaining an effective area capacity of 35% of the neck area. In the full down-blow position, grille effective area is increased to 75%.

STANDARD FEATURES:

- 1 1/4" (32) wide face border with a 1" (25) overlap margin standard, furnished with countersunk screw holes and mounting screws.
- NF Narrow Frame with 1" (25) face border optional. Concealed mounting is optional.
- Adjustable pattern – grille blades easily adjustable to provide horizontal three-way or four-way air path from a ceiling location. Adjustable to a full down-blow position as required. Curved blades can be fixed to provide a non-adjustable horizontal air path if specified.

- Available from 6" x 4" to 36" x 36" (152 x 102 to 914 x 914).

CONSTRUCTION MATERIAL:

- High quality, extruded aluminum construction.
- Heavy gauge extruded aluminum margins, mechanically interlocked with reinforced mitered corners.
- Extruded blades – curved streamlined aluminum blades on 1" (25) centers. Blades formed with tenons to fit snugly into the side margin, friction loaded to firmly hold deflection setting.

- Steel or aluminum integral dampers are opposed blade design with a screwdriver slot operator.

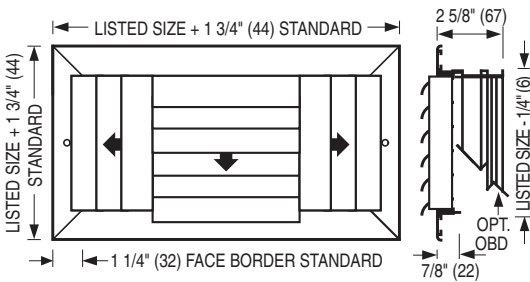
FINISH OPTIONS:

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

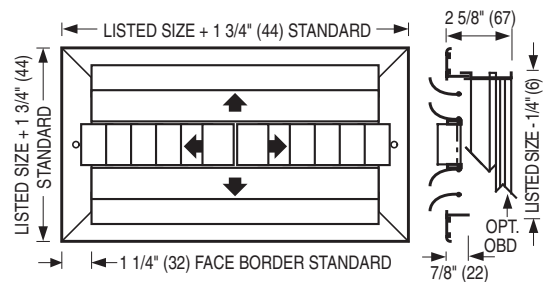
OPTIONS AND ACCESSORIES:

- IS Insect Screen
- PF Plaster Frame
- GK Foam Gasket
- EQT Earthquake Tabs

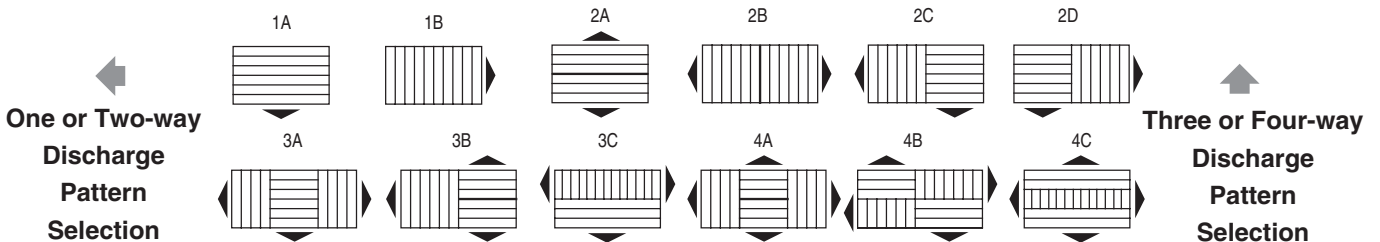
For additional options and accessories, see page F191.



Model 51C Three-way Blow (3A)



Model 51C Four-way Blow (4A)



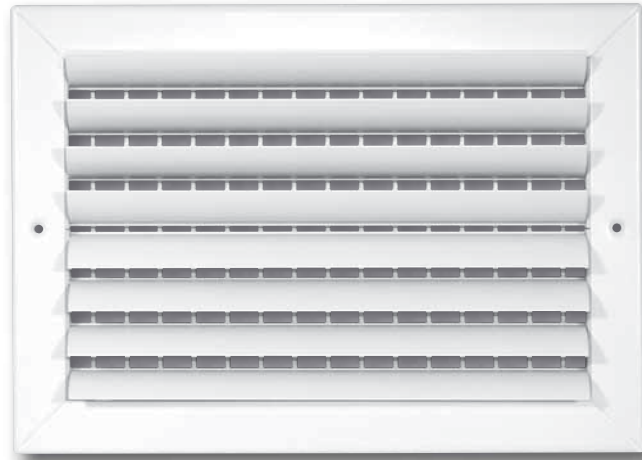
STEEL CURVED BLADE GRILLES AND REGISTERS

- SUPPLY

Models:

61C and 61CD with One and Two-way Discharge Pattern

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



Model 61CD (Pattern 2A)

Models 61C and 61CD are supply grilles and registers which incorporate individually adjustable curved blades. The blades can be positioned to provide one-way, two-way and two-way corner blow discharge air patterns. They are commonly used in ceiling and/or side wall locations and are recommended for use in both heating and cooling applications.

Both one-way and two-way pattern grilles can be adjusted to full or partial down-blow position. The curved streamlined blades are adjusted to a uniform partially closed position to deflect the air path horizontally while retaining an effective area capacity of 35% of the neck area. In the full down-blow position, grille effective area is increased to 75%.

STANDARD FEATURES:

- 1 1/4" (32) wide face border with a 1" (25) overlap margin standard, furnished with countersunk screw holes and mounting screws. Concealed mounting is optional.
- Adjustable pattern – grille blades easily adjustable to provide horizontal one-way or two-way air path from a ceiling location. Adjustable to a full down-blow position as required. Curved blades can be fixed to provide a non-adjustable horizontal air path if specified.
- Available from 6" x 4" to 36" x 36" (152 x 102 to 914 x 914).

CONSTRUCTION MATERIAL:

- Cost effective, corrosion-resistant steel construction.
- Heavy gauge, roll-formed steel margins, mechanically interlocked with reinforced mitered corners.
- Extruded blades – curved streamlined aluminum blades on 1" (25) centers. Blades formed with tenons to fit snugly into the side margin, friction loaded to firmly hold deflection setting.
- Integral dampers - roll-formed steel blades. Opposed blade design with a screwdriver slot operator.

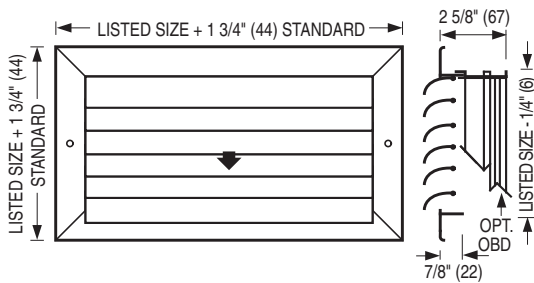
FINISH OPTIONS:

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

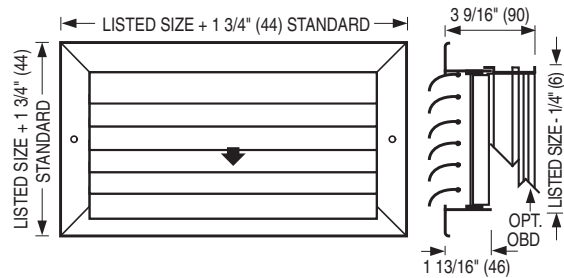
OPTIONS AND ACCESSORIES:

- IS Insect Screen
- PF Plaster Frame
- GK Foam Gasket
- EQT Earthquake Tabs

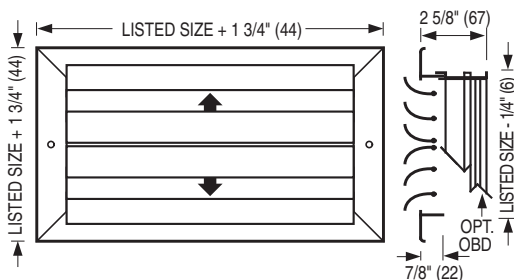
For additional options and accessories, see page F191.



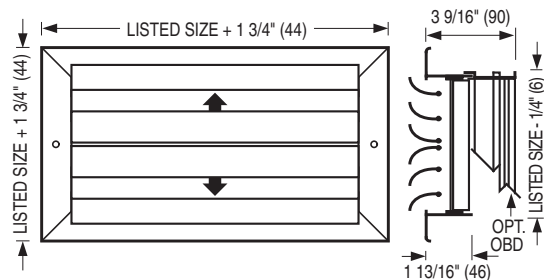
Model 61C One-way Blow (1A)



Model 61CD One-way Blow (1A) with Rear Directional Vanes



Model 61C Two-way Blow (2A)



Model 61CD Two-way Blow (2A) with Rear Directional Vanes

STEEL CURVED BLADE GRILLES AND REGISTERS

• SUPPLY

Models:

61C with Three and Four-way Discharge Pattern

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



Model 61C (Pattern 4A)

Model 61C Patterns 3A, 3B or 3C Supply Ceiling Grilles and Registers have individually adjustable curved blades arranged to provide a three-way ceiling air pattern. Model 61C Patterns 4A, 4B or 4C Supply Ceiling Grilles and Registers have individually adjustable curved blades arranged to provide a four-way ceiling air pattern. They are recommended for applications in ceiling locations for heating and cooling systems.

Both three-way and four-way pattern grilles can be adjusted to full or partial down-blow position. The curved streamlined blades are adjusted to a uniform partially closed position to deflect the air path horizontally while retaining an effective area capacity of 35% of the neck area. In the full down-blow position, grille effective area is increased to 75%.

STANDARD FEATURES:

- 1 1/4" (32) wide face border with a 1" (25) overlap margin standard, furnished with countersunk screw holes and mounting screws. Concealed mounting is optional.
- Adjustable pattern – grille blades easily adjustable to provide horizontal three-way or four-way air path from a ceiling location. Adjustable to a full down-blow position as required. Curved blades can be fixed to provide a non-adjustable horizontal air path if specified.
- Available from 6" x 4" to 36" x 36" (152 x 102 to 914 x 914).

CONSTRUCTION MATERIAL:

- Cost effective, corrosion-resistant steel construction.
- Heavy gauge roll-formed steel margins, mechanically interlocked with reinforced mitered corners.
- Extruded blades – curved streamlined aluminum blades on 1" (25) centers. Blades formed with tenons to fit snugly into the side margin, friction loaded to firmly hold deflection setting.
- Integral dampers - roll-formed steel blades. Opposed blade design with a screwdriver slot operator.

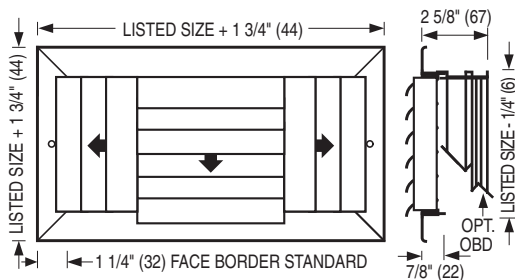
FINISH OPTIONS:

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

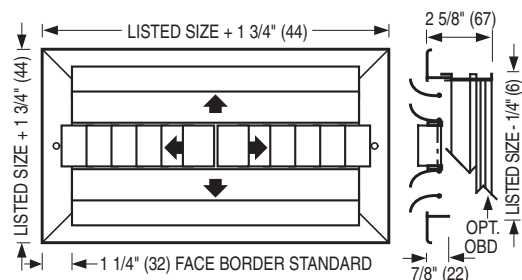
OPTIONS AND ACCESSORIES:

- IS Insect Screen
- PF Plaster Frame
- GK Foam Gasket
- EQT Earthquake Tabs

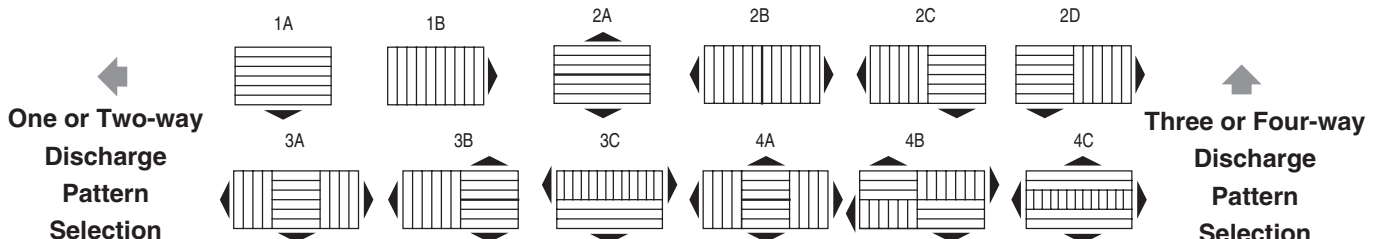
For additional options and accessories, see page F191.



Model 61C Three-way Blow (3A)



Model 61C Four-way Blow (4A)



PERFORMANCE DATA:

CURVED BLADE • SUPPLY GRILLES AND REGISTERS • 51C AND 61C SERIES

MODELS: 51C, 51CD, 61C, 61CD

Core Area, Square Feet	Nominal Duct Size, Inches	Core Velocity, FPM										
		100	200	300	400	500	600	700	800	900	1000	
.12	6 x 4	Total Pressure	.003	.015	.032	.058	.094	.136	.182	.234	.302	.369
		CFM	10	25	35	50	60	70	85	95	110	120
		Noise Criteria	-	-	-	-	20	23	27	30	33	36
		Throw	4-Way 3-Way 2-Way 1-Way				5-7-11 5-7-12 5-8-13 7-10-16	5-8-13 9-6-14 7-10-16 8-12-18	7-10-16 7-11-16 8-12-18 10-14-22	8-12-18 8-12-19 9-14-21 11-16-26	9-13-20 10-14-22 10-16-24 12-18-29	10-15-23 10-16-24 12-17-27 14-20-33
.16	8 x 4	Total Pressure	-	-	-	15	20	25	29	31	34	37
		CFM	15	30	50	65	80	95	110	130	145	160
		Noise Criteria	-	-	-	15	20	25	29	31	34	37
		Throw	4-Way 3-Way 2-Way 1-Way		4-6-9 4-6-10 5-7-11 5-8-13	5-7-12 5-8-13 6-9-14 7-11-16	6-9-14 6-9-15 7-11-16 9-13-20	7-11-16 8-12-18 9-13-20 10-16-24	8-12-19 9-14-21 10-15-23 12-17-28	9-14-21 10-15-23 11-16-26 13-19-31	10-16-24 11-16-26 12-18-29 15-21-35	12-17-27 12-18-29 14-20-32 16-24-39
.20	10 x 4 6 x 6	Total Pressure	-	-	-	15	21	26	29	32	35	38
		CFM	20	40	60	80	100	120	140	160	180	200
		Noise Criteria	-	-	-	15	21	26	29	32	35	38
		Throw	4-Way 3-Way 2-Way 1-Way		4-6-9 4-6-10 5-7-11 6-9-14	5-8-13 6-9-14 5-9-15 8-11-17	6-9-15 7-10-16 8-11-17 9-14-21	7-10-16 8-12-19 9-14-21 11-16-25	8-12-19 9-13-20 10-14-22 12-18-29	9-13-20 10-14-22 10-16-24 14-20-33	10-15-23 11-16-25 12-17-28 16-23-37	11-16-26 12-17-28 13-19-31 17-25-41
.26	12 x 4 8 x 6	Total Pressure	-	-	-	16	22	27	30	33	36	39
		CFM	25	50	80	105	130	155	180	210	235	260
		Noise Criteria	-	-	-	16	22	27	30	33	36	39
		Throw	4-Way 3-Way 2-Way 1-Way	3-4-7 3-4-7 3-5-8 4-6-10	4-6-10 5-7-11 5-7-12 6-9-15	6-9-14 6-9-15 7-10-16 8-12-18	7-10-16 8-11-17 8-12-19 10-15-23	8-12-19 9-13-20 10-15-23 12-17-27	10-14-22 10-15-23 11-16-26 13-19-31	11-16-25 11-16-26 13-18-30 15-22-36	12-17-29 13-18-30 14-20-33 16-25-40	13-19-31 14-20-33 16-23-37 17-27-44
.30	14 x 4	Total Pressure	-	-	-	17	22	27	31	34	37	40
		CFM	30	60	90	120	150	180	210	240	270	300
		Noise Criteria	-	-	-	17	22	27	31	34	37	40
		Throw	4-Way 3-Way 2-Way 1-Way	3-4-7 3-5-8 3-5-8 4-6-10	4-6-10 5-7-11 5-8-13 6-9-15	6-9-14 6-9-15 7-11-16 8-12-19	7-11-16 8-12-18 8-12-19 10-16-24	7-11-16 8-12-18 9-13-20 10-16-24	9-13-20 10-14-22 10-15-23 12-17-28	10-15-23 10-16-24 12-17-27 14-20-33	12-18-29 13-19-31 16-23-37 17-26-42	14-20-32 15-21-34 16-23-38 19-28-46
.35	16 x 4 10 x 6 8 x 8	Total Pressure	-	-	-	18	23	28	31	35	37	40
		CFM	35	70	105	140	175	210	245	280	315	350
		Noise Criteria	-	-	-	18	23	28	31	35	37	40
		Throw	4-Way 3-Way 2-Way 1-Way	3-4-7 3-5-8 4-6-9 4-6-10	5-7-11 5-7-12 5-8-13 7-10-16	6-9-15 6-9-15 7-11-16 9-13-20	8-11-17 8-12-18 8-12-19 10-16-24	9-13-20 10-14-22 10-16-24 12-18-29	10-16-24 11-16-25 10-16-24 15-21-34	12-17-27 14-18-29 12-17-28 17-24-39	13-18-30 14-20-32 15-22-36 17-26-43	14-20-33 15-22-36 16-23-40 19-30-48
.40	18 x 4 12 x 6	Total Pressure	-	-	-	19	24	29	32	35	38	41
		CFM	40	80	120	160	200	240	280	320	360	400
		Noise Criteria	-	-	-	19	24	29	32	35	38	41
		Throw	4-Way 3-Way 2-Way 1-Way	3-5-8 3-5-8 4-6-9 5-7-11	5-7-11 5-8-13 6-9-14 7-10-16	6-9-15 7-10-16 8-11-17 9-14-21	8-12-18 8-12-19 9-14-21 11-16-25	9-14-21 10-15-23 11-16-25 13-18-30	11-16-25 11-16-26 12-18-29 15-21-35	12-17-28 13-18-30 14-20-33 16-25-40	13-19-31 15-21-34 16-23-37 18-28-45	15-21-34 16-23-37 17-25-41 20-31-49
.45	20 x 4 14 x 6 10 x 8	Total Pressure	-	-	-	19	25	29	32	36	39	42
		CFM	45	90	135	180	225	270	315	360	405	450
		Noise Criteria	-	-	-	19	25	29	32	36	39	42
		Throw	4-Way 3-Way 2-Way 1-Way	3-5-8 3-5-8 4-6-9 5-7-11	5-7-12 5-8-13 6-9-14 7-11-16	6-9-15 7-11-16 8-12-18 9-14-21	8-12-18 9-13-20 10-14-22 11-16-26	10-14-22 10-15-23 10-14-22 13-19-31	11-16-25 12-17-27 11-16-26 15-22-36	12-18-29 13-19-31 13-18-30 17-25-41	14-20-32 15-21-35 16-23-38 19-28-46	15-22-36 16-23-38 17-26-43 21-32-51
.55	24 x 4 16 x 6 12 x 8	Total Pressure	-	-	-	20	25	29	33	37	39	42
		CFM	55	110	165	220	275	330	385	440	495	550
		Noise Criteria	-	-	-	20	25	29	33	37	39	42
		Throw	4-Way 3-Way 2-Way 1-Way	2-3-4 2-3-5 2-3-5 2-4-6	3-5-8 4-6-9 4-6-10 5-7-12	5-7-12 5-8-13 6-9-15 8-11-17	7-10-16 8-11-17 8-12-19 10-14-22	8-12-19 9-14-21 10-15-23 12-17-28	10-15-23 11-16-25 12-17-28 14-20-33	12-17-27 12-18-29 14-26-32 16-23-38	13-18-30 14-20-32 15-22-36 17-26-43	15-22-34 16-23-37 16-25-40 20-30-49

For performance data notes, see F93.

PERFORMANCE DATA:

CURVED BLADE • SUPPLY GRILLES AND REGISTERS • 51C AND 61C SERIES

MODELS: 51C, 51CD, 61C, 61CD

Core Area, Square Feet	Nominal Duct Size, Inches	Core Velocity, FPM	100	200	300	400	500	600	700	800	900	1000	
		Total Pressure	.003	.015	.032	.058	.094	.136	.182	.234	.302	.369	
.62	18 x 6 10 x 10	CFM	60	125	185	250	310	370	435	495	560	620	
		Noise Criteria	-	-	-	20	26	30	34	37	40	43	
		Throw	4-Way	2-3-4	4-6-9	5-8-13	7-11-16	9-13-20	10-16-24	12-17-27	13-19-21	15-21-35	16-24-39
			3-Way	2-3-5	4-6-9	6-9-14	8-11-17	9-14-21	11-16-26	13-18-30	14-20-33	16-24-38	17-26-42
			2-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-16-24	12-17-28	14-20-33	16-23-37	17-26-42	19-28-46
1-Way	2-4-6		5-7-12	8-11-17	10-15-27	12-18-29	15-21-24	17-25-40	18-28-45	20-31-49	23-35-55		
.70	30 x 4 20 x 6 14 x 8 12 x 10	CFM	70	140	210	280	350	420	490	560	630	700	
		Noise Criteria	-	-	-	20	26	30	34	38	40	43	
		Throw	4-Way	2-3-5	4-6-9	5-8-13	7-11-16	9-13-20	10-16-24	12-19-28	14-20-32	15-22-36	16-25-40
			3-Way	2-3-5	4-6-9	6-9-14	8-12-18	10-14-22	11-16-26	13-19-31	15-21-35	16-24-39	17-26-43
			2-Way	2-4-6	5-7-11	7-10-16	9-13-20	10-16-24	12-18-29	15-21-34	17-24-39	17-26-43	19-30-48
1-Way	3-4-7		5-8-13	8-12-18	10-16-24	12-18-29	15-21-35	17-25-41	19-28-46	21-32-52	24-36-57		
.81	36 x 4 24 x 6 16 x 8 14 x 10	CFM	80	160	245	325	405	485	565	650	730	810	
		Noise Criteria	-	-	15	21	27	31	35	38	41	44	
		Throw	4-Way	2-3-5	4-6-9	6-9-14	8-11-17	9-14-21	11-16-25	12-18-29	14-20-33	16-23-37	17-26-42
			3-Way	2-3-5	4-6-10	6-9-15	8-12-19	11-16-25	12-17-27	14-20-32	15-22-36	16-25-40	18-28-45
			2-Way	2-4-6	5-7-11	7-10-16	9-14-21	11-16-25	13-18-30	15-21-35	17-25-40	18-28-45	20-31-49
1-Way	3-4-7		5-8-13	8-12-18	11-16-25	13-19-31	16-23-37	17-26-43	19-30-48	22-33-53	25-38-60		
.87	18 x 8 12 x 12	CFM	85	175	260	350	435	520	610	695	785	870	
		Noise Criteria	-	-	-	21	27	31	35	38	41	44	
		Throw	4-Way	2-3-5	4-6-9	6-9-14	8-12-18	10-14-22	11-16-26	13-18-30	15-21-34	16-23-38	17-26-42
			3-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-16-24	12-17-28	14-20-32	16-23-37	17-25-41	19-28-46
			2-Way	2-4-6	5-7-11	7-11-16	9-14-21	11-16-26	13-19-31	15-22-36	17-25-41	19-28-46	21-31-51
1-Way	3-4-7		6-9-14	8-12-19	11-16-25	13-19-30	16-23-38	18-27-44	20-30-49	22-35-55	25-38-62		
1.02	30 x 6 20 x 8 16 x 10 14 x 12	CFM	100	205	305	410	510	610	715	815	920	1020	
		Noise Criteria	-	-	15	22	28	32	36	39	42	45	
		Throw	4-Way	2-3-5	4-6-10	6-9-15	8-12-18	10-15-23	12-17-27	13-19-31	15-21-35	16-25-40	18-27-44
			3-Way	2-4-6	4-6-10	7-10-16	9-13-20	10-16-24	12-18-29	15-21-34	16-23-38	17-26-43	19-29-47
			2-Way	2-4-6	5-7-12	7-11-16	10-14-22	12-17-27	14-20-32	16-23-38	17-26-42	19-30-48	22-33-53
1-Way	3-4-7		6-9-14	9-13-20	11-16-26	14-20-33	16-24-39	18-28-45	21-31-50	24-46-57	26-40-63		
1.15	24 x 8 18 x 10 16 x 12	CFM	115	230	345	460	575	690	805	920	1040	1150	
		Noise Criteria	-	-	16	23	29	32	36	40	43	46	
		Throw	4-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-16-24	12-17-28	14-20-32	16-23-37	17-25-41	18-28-45
			3-Way	2-4-6	5-7-11	7-10-16	9-13-20	11-16-25	13-18-30	15-21-35	16-25-40	18-27-44	20-30-49
			2-Way	2-4-6	5-7-12	8-11-17	10-14-22	12-17-28	14-20-33	16-24-39	18-27-44	20-30-49	22-34-54
1-Way	3-5-8		6-9-15	9-14-21	12-17-27	15-21-34	17-25-40	19-28-46	21-33-53	24-36-58	27-41-66		
1.25	36 x 6 20 x 10 14 x 14	CFM	125	250	375	500	625	750	875	1000	1120	1250	
		Noise Criteria	-	-	16	23	29	33	37	40	43	46	
		Throw	4-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-16-24	12-17-28	14-20-33	16-23-37	17-26-42	19-28-46
			3-Way	2-4-6	5-7-11	7-10-16	9-14-21	11-16-26	13-19-31	15-22-36	16-25-40	18-28-45	20-31-49
			2-Way	2-4-6	5-7-12	8-11-17	10-15-23	12-18-29	15-21-34	16-25-40	18-28-45	20-31-49	23-35-55
1-Way	3-5-8		6-9-15	9-14-21	12-17-28	15-21-34	17-25-40	19-29-47	22-33-53	25-38-60	28-42-67		
1.35	16 x 14 18 x 12	CFM	135	270	405	540	675	810	945	1080	1220	1350	
		Noise Criteria	-	-	16	23	29	33	37	40	43	46	
		Throw	4-Way	2-4-6	4-6-10	7-10-16	9-13-20	10-16-24	12-18-29	15-21-34	16-23-38	17-26-38	19-29-47
			3-Way	2-4-6	5-7-11	7-11-16	9-14-21	11-16-28	13-19-31	15-22-36	17-25-41	19-27-46	21-31-50
			2-Way	3-4-7	5-8-13	8-12-18	10-16-24	12-18-29	15-21-35	17-25-41	19-28-46	21-32-51	24-36-57
1-Way	3-5-8		6-9-15	10-14-22	12-17-28	15-21-35	17-26-42	20-30-49	22-34-54	25-38-61	28-43-68		
1.53	30 x 8 24 x 10 18 x 14 16 x 16	CFM	155	305	460	610	765	920	1070	1220	1380	1530	
		Noise Criteria	-	-	17	24	29	34	38	41	44	47	
		Throw	4-Way	2-4-6	5-7-11	7-10-16	9-13-20	11-16-25	13-18-30	15-21-35	16-24-39	18-27-44	20-30-49
			3-Way	2-4-6	5-7-12	7-11-16	10-14-22	12-17-27	14-20-32	16-23-38	17-26-43	19-30-48	21-33-52
			2-Way	3-4-7	5-8-13	8-12-18	10-16-24	13-19-31	15-22-36	17-26-42	19-29-46	22-33-53	24-36-58
1-Way	3-5-8		7-10-16	10-14-22	12-18-29	15-22-36	17-26-43	2-31-49	23-35-49	26-40-63	29-45-71		

For performance data notes, see F93.

PERFORMANCE DATA:

CURVED BLADE • SUPPLY GRILLES AND REGISTERS • 51C AND 61C SERIES

MODELS: 51C, 51CD, 61C, 61CD

Core Area, Square Feet	Nominal Duct Size, Inches	Core Velocity, FPM		100	200	300	400	500	600	700	800	900	1000
		Total Pressure		.003	.015	.032	.058	.094	.136	.182	.234	.302	.369
1.82	36 x 8 30 x 10 24 x 12 20 x 14 18 x 16	CFM		182	365	545	730	910	1090	1279	1460	1640	1820
		Noise Criteria		–	–	18	25	30	34	38	42	45	48
		Throw	4-Way	2-4-6	5-7-11	7-11-16	9-14-21	11-16-26	13-19-31	15-22-36	17-25-41	19-28-46	21-32-51
			3-Way	2-4-6	5-7-12	8-11-17	10-15-23	12-17-28	15-21-34	16-24-39	18-27-44	20-31-49	23-35-55
			2-Way	3-4-7	6-9-14	8-12-19	11-16-26	14-20-32	16-23-38	18-27-44	20-30-49	23-35-55	25-38-61
1-Way	3-5-8		7-10-16	10-15-23	13-19-31	16-23-38	18-28-45	21-33-52	24-36-58	28-41-66	31-47-74		
2.10	24 x 14 20 x 16 18 x 18	CFM		210	420	630	840	1050	1260	1470	1680	1890	2100
		Noise Criteria		–	–	19	25	30	35	39	42	45	48
		Throw	4-Way	2-4-6	5-7-12	8-11-17	10-14-22	12-17-27	14-20-33	16-23-43	17-26-43	19-30-48	22-33-53
			3-Way	3-4-7	5-8-13	8-12-18	10-16-24	12-17-28	15-21-35	17-25-41	19-28-46	21-32-51	24-36-57
			2-Way	3-4-7	6-9-14	9-13-20	12-17-29	14-20-33	17-24-39	18-28-45	21-31-50	24-36-57	27-40-64
1-Way	4-6-9		7-11-16	10-16-24	14-20-32	16-24-39	20-39-47	22-33-53	25-38-60	28-43-68	32-49-78		
2.35	36 x 10 30 x 12 24 x 16 20 x 18	CFM		235	470	705	940	1180	1410	1640	1880	2120	2350
		Noise Criteria		–	–	19	26	31	35	39	43	46	49
		Throw	4-Way	2-4-6	5-7-12	8-11-17	10-15-23	12-17-28	15-21-34	16-24-39	18-27-44	20-30-49	23-35-55
			3-Way	3-4-7	5-8-13	8-12-19	10-16-24	13-18-30	15-22-36	17-26-42	19-30-48	22-33-53	24-36-58
			2-Way	3-5-8	6-9-15	9-14-21	12-17-27	15-21-34	17-25-41	19-29-47	21-33-52	24-37-59	33-49-80
1-Way	4-6-9		7-11-16	11-16-25	14-20-33	17-25-41	19-30-48	23-35-55	26-39-62	29-44-70	33-49-80		
2.68	36 x 12 30 x 14 24 x 18 20 x 20	CFM		270	535	805	1070	1340	1610	1880	2140	2410	2680
		Noise Criteria		–	–	19	26	31	36	40	43	46	48
		Throw	4-Way	3-4-7	5-8-13	8-12-18	10-16-24	12-18-29	15-21-35	17-25-41	19-28-46	21-31-50	24-36-57
			3-Way	3-4-7	6-9-14	8-12-19	11-16-25	14-20-32	16-23-38	18-27-44	20-30-49	23-35-55	25-38-61
			2-Way	3-5-8	6-9-15	9-14-21	12-17-28	15-21-35	19-29-47	19-30-48	22-34-54	25-38-60	27-43-68
1-Way	4-6-9		8-11-17	11-16-26	15-21-34	17-26-42	20-31-49	24-36-57	27-40-64	30-46-73	34-51-82		
3.15	36 x 14 30 x 16 24 x 20	CFM		315	630	945	1260	1580	1890	2200	2520	2840	3150
		Noise Criteria		–	–	20	27	32	37	41	44	47	49
		Throw	4-Way	3-4-7	5-8-13	8-12-18	11-16-25	13-18-30	15-22-36	17-26-42	19-30-48	22-34-53	25-38-60
			3-Way	3-4-7	6-9-14	9-13-20	11-16-26	14-20-33	16-24-39	18-28-45	21-31-50	24-37-57	27-40-64
			2-Way	3-5-8	7-10-16	10-13-23	12-18-29	16-23-37	18-27-44	20-31-49	23-35-56	26-41-63	29-45-71
1-Way	4-6-10		8-12-18	12-17-27	15-20-37	18-27-44	21-32-51	25-38-60	28-42-67	32-49-77	36-54-86		
3.65	36 x 16 30 x 18 24 x 24	CFM		365	730	1100	1460	1820	2190	2560	2920	3280	3650
		Noise Criteria		–	–	20	28	33	37	41	45	48	50
		Throw	4-Way	3-4-7	6-9-14	8-12-19	11-16-26	14-20-32	16-23-38	18-27-44	20-30-49	23-35-55	26-39-62
			3-Way	3-5-8	6-9-15	9-14-21	12-17-27	15-21-34	17-25-41	19-29-47	22-33-53	24-37-59	27-41-66
			2-Way	3-5-8	7-10-16	10-15-23	13-19-31	16-23-38	18-28-45	21-33-52	24-36-58	27-41-66	31-47-74
1-Way	4-6-10		8-12-19	12-17-28	15-22-36	18-28-45	22-33-53	26-39-62	29-44-70	33-50-80	37-55-89		
4.05	36 x 18 30 x 20	CFM		405	810	1220	1620	2020	2430	2830	3240	3640	4050
		Noise Criteria		–	–	21	28	33	38	42	45	48	50
		Throw	4-Way	3-4-7	6-9-14	9-13-20	11-16-26	14-20-33	16-24-39	18-28-45	21-31-50	24-36-57	27-40-64
			3-Way	3-5-8	6-9-15	9-14-21	12-17-28	15-21-35	17-26-42	19-30-48	22-34-54	25-38-61	28-43-68
			2-Way	4-6-9	7-11-16	10-15-24	13-19-31	16-24-39	19-28-46	22-33-53	25-38-60	28-43-68	32-48-77
1-Way	4-6-10		8-12-19	12-18-29	16-23-38	19-28-46	23-35-55	27-40-64	30-45-72	34-50-81	38-57-91		
4.72	36 x 20 30 x 24	CFM		470	945	1420	1890	2360	2830	3300	3780	4250	4720
		Noise Criteria		–	–	21	30	34	38	42	46	48	51
		Throw	4-Way	3-5-8	6-9-15	9-14-21	12-17-27	15-21-34	17-26-41	19-29-47	31-33-52	24-37-59	27-41-66
			3-Way	3-5-8	7-10-16	10-14-23	12-18-29	16-23-37	18-27-44	21-31-50	23-35-56	27-40-64	30-45-72
			2-Way	4-6-9	7-11-16	11-16-25	14-20-33	17-25-41	19-30-48	23-35-55	26-39-62	29-45-71	33-49-80
1-Way	5-7-11		9-13-20	13-18-30	16-24-39	19-30-48	24-36-57	27-41-66	31-48-76	36-53-85	40-59-95		
5.82	36 x 24 30 x 30	CFM		580	1160	1750	2330	2910	3490	4070	4660	5240	5820
		Noise Criteria		–	–	22	29	35	39	43	47	49	52
		Throw	4-Way	3-5-8	6-9-15	10-14-22	12-18-29	15-22-36	17-26-43	20-31-49	23-35-56	26-39-62	29-44-70
			3-Way	4-6-9	7-10-16	10-16-24	13-19-31	16-24-39	19-28-46	22-33-53	24-37-59	28-43-68	31-48-76
			2-Way	4-6-9	8-11-17	11-16-26	15-21-34	17-26-43	21-31-50	24-36-58	27-41-66	31-47-75	35-52-84
1-Way	5-7-11		9-14-21	13-19-31	11-25-41	21-31-50	25-38-60	28-44-70	33-49-80	38-56-90	43-64-102		

For performance data notes, see F93.

PERFORMANCE DATA:

CURVED BLADE • SUPPLY GRILLES AND REGISTERS • 51C AND 61C SERIES

MODELS: 51C, 51CD, 61C, 61CD

Core Area, Square Feet	Nominal Duct Size, Inches	Core Velocity, FPM	100	200	300	400	500	600	700	800	900	1000	
		Total Pressure	.003	.015	.032	.058	.094	.136	.182	.234	.302	.369	
7.17	36 x 30	CFM	715	1430	2150	2870	3580	4300	5020	5740	6450	7170	
		Noise Criteria	–	–	23	29	35	40	44	48	50	53	
		Throw	4-Way	3-5-8	7-10-16	10-15-23	13-19-31	16-22-38	18-28-45	21-33-52	24-36-58	27-41-66	31-47-74
			3-Way	4-6-9	7-11-16	11-16-25	14-20-33	17-25-41	20-30-49	23-35-55	26-40-63	29-45-71	33-49-80
			2-Way	4-6-10	8-12-19	12-17-28	15-22-36	18-28-45	22-33-53	26-39-62	29-44-70	33-49-80	37-55-89
1-Way	5-7-12		10-14-22	14-20-33	17-26-43	22-33-53	27-40-64	31-47-75	35-52-84	40-59-95	45-67-107		
8.63	36 x 36	CFM	865	1730	2590	3450	4320	5180	6040	6900	7700	8630	
		Noise Criteria	–	–	24	30	36	41	45	48	50	53	
		Throw	4-Way	4-6-9	7-11-16	10-16-24	14-20-32	16-25-40	19-30-48	22-34-54	26-39-62	29-43-69	32-49-78
			3-Way	4-6-10	8-11-17	11-16-26	15-21-34	17-28-43	21-31-50	24-36-58	27-41-66	31-47-75	35-52-85
			2-Way	4-6-10	8-12-19	12-18-29	16-23-38	19-30-47	23-35-56	27-41-65	31-47-66	35-52-83	39-59-93
1-Way	5-8-13		10-15-23	15-21-35	18-28-45	23-35-57	28-35-57	32-49-78	37-55-88	42-62-100	47-70-113		

Performance Notes:

- All pressures are in inches w.g..
- Core Velocity is in feet per minute.
- Throw values are given for terminal velocities of 150, 100 and 50 fpm, with a cooling temperature differential (ΔT) of 20°F and are based on surface mount units benefitting from the ceiling coanda effect. The blade settings were set for optimum discharge, parallel to the face of the grille, which has the outer blades closest to the frame, set with an opening of 1/8" (3) and progressively wider spacings between blades away from the frame. (**Note:** The throw values may be increased or decreased by as much as 20% by changing the blade setting).
- Blades in the full open position
 - reduce the Noise Criteria by 6.
 - multiply the Total Pressure x 0.3.
- 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.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

HOW TO ORDER OR TO SPECIFY

MODEL SERIES: 51C

ALUMINUM CURVED BLADE GRILLES AND REGISTERS

EXAMPLE: 51C - O - 24 x 12 - S - AW - DMI - A - 4C - AB - PF

1. Models

- 51C Aluminum
- 51CD Aluminum w/rear vanes

2. Damper (OBD)

- (model suffix)
- O Steel
- OA Aluminum
- None

3. Nominal Width x Height

inches (mm)

4. Frame/Border Type

- Surface Mount:**
- S Standard
- Border 1 1/4" (32) (default)
- NF Narrow Frame
- Border 1" (25)

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
- SA Satin Anodized (clear)
- SP Special Custom Color

6. OBD Finish

- DMI Mill (default)
- DBK Painted Black

7. Fastening

- A Screw Holes (default)
- C Concealed Mounting Straps
- D Concealed Screw Holes in Neck
- N None

8. Blow Pattern

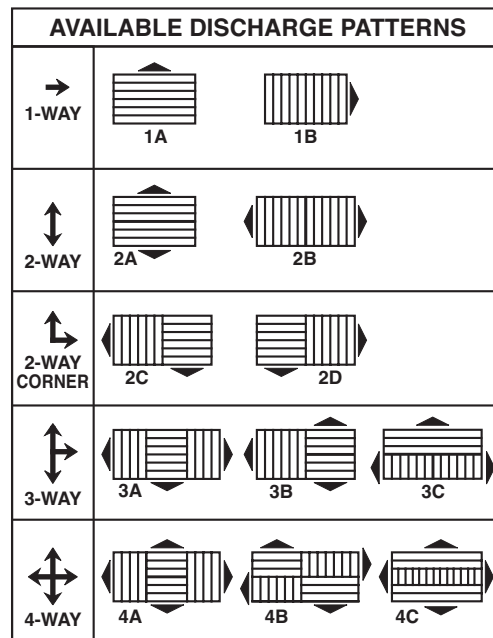
- 1A 1-Way Long
- 1B 1-Way Short
- 2A 2-Way Long
- 2B 2-Way Short
- 2C 2-Way Corner
- 2D 2-Way Corner
- 3A 3-Way Short
- 3B 3-Way Long
- 3C 3-Way Long
- 4A 4-Way Long
- 4B 4-Way Equal
- 4C 4-Way Short

9. Front Blades

- AB Adjustable (default)
- FB Fixed

OPTIONS & ACCESSORIES:

- None (default)
- 10. Insect Screen**
- IS Insect Screen
- 11. Plaster Sub-Frame**
- PF Plaster Sub-Frame
- 12. Gaskets**
- GK Foam Gasket
- 13. Earthquake Tabs**
- EQT Earthquake Tabs



MODEL SERIES: 51C

ALUMINUM CURVED BLADE GRILLES AND REGISTERS

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **51C** or **51CD (with rear vanes) Aluminum Curved Blade Supply Grilles** of the types and sizes as shown on the plans and air distribution schedules. The blades shall be aluminum, extruded into a streamlined curved shape and assembled in a one, two, three or four-way pattern (specify pattern). The frame shall be heavy gauge extruded aluminum and mechanically interlocked for reinforcement, with hairline mitered corners. The finish shall be AW Appliance White (optional finishes are available).

(Optional) An opposed blade damper, constructed of heavy gauge corrosion-resistant steel (aluminum is optional) 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.

HOW TO ORDER OR TO SPECIFY

MODEL SERIES: 61C

STEEL CURVED BLADE GRILLES AND REGISTERS

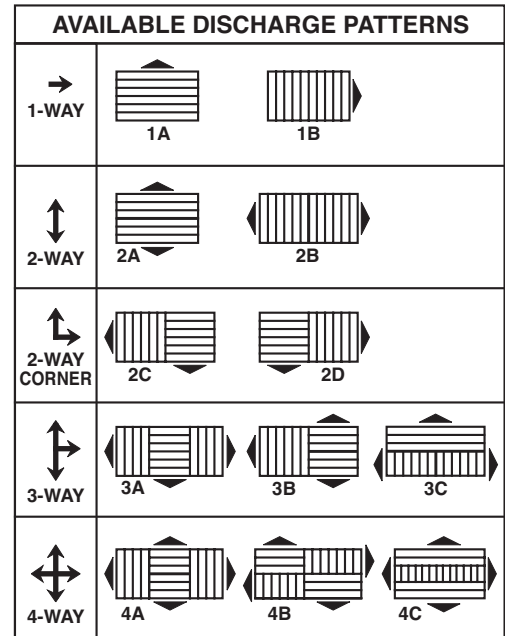
EXAMPLE: 61C - O - 24 x 12 - S - AW - DMI - A - 4C - AB - PF

1. **Models**
 61C Steel
 61CD Steel w/rear vanes
2. **Damper (OBD)**
 (model suffix)
 O Steel
 — None
3. **Nominal Width x Height**
 inches (mm)
4. **Frame/Border Type**
 S Standard
 Border 1 1/4" (32)
 (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. **OBD Finish**
 DMI Mill (default)
 DBK Painted Black

7. **Fastening**
 A Screw Holes (default)
 C Concealed Mounting Straps
 D Concealed Screw Holes in Neck
 N None
8. **Blow Pattern**
 1A 1-Way Long
 1B 1-Way Short
 2A 2-Way Long
 2B 2-Way Short
 2C 2-Way Corner
 2D 2-Way Corner
 3A 3-Way Short
 3B 3-Way Long
 3C 3-Way Long
 4A 4-Way Long
 4B 4-Way Equal
 4C 4-Way Short
9. **Front Blades**
 AB Adjustable (default)
 FB Fixed

OPTIONS & ACCESSORIES:

- None (default)
- 10. **Insect Screen**
 IS Insect Screen
- 11. **Plaster Sub-Frame**
 PF Plaster Sub-Frame
- 12. **Gaskets**
 GK Foam Gasket
- 13. **Earthquake Tabs**
 EQT Earthquake Tabs



MODEL SERIES: 61C

STEEL CURVED BLADE GRILLES AND REGISTERS

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **61C** or **61CD (with rear vanes) Steel Curved Blade Supply Grilles** of the types and sizes as shown on the plans and air distribution schedules. The blades shall be aluminum, extruded into a streamlined curved shape and assembled in a one, two, three or four-way pattern (specify pattern). The frames shall be heavy gauge roll-formed steel and mechanically interlocked for reinforcement, with hairline mitered corners. 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 grille, 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

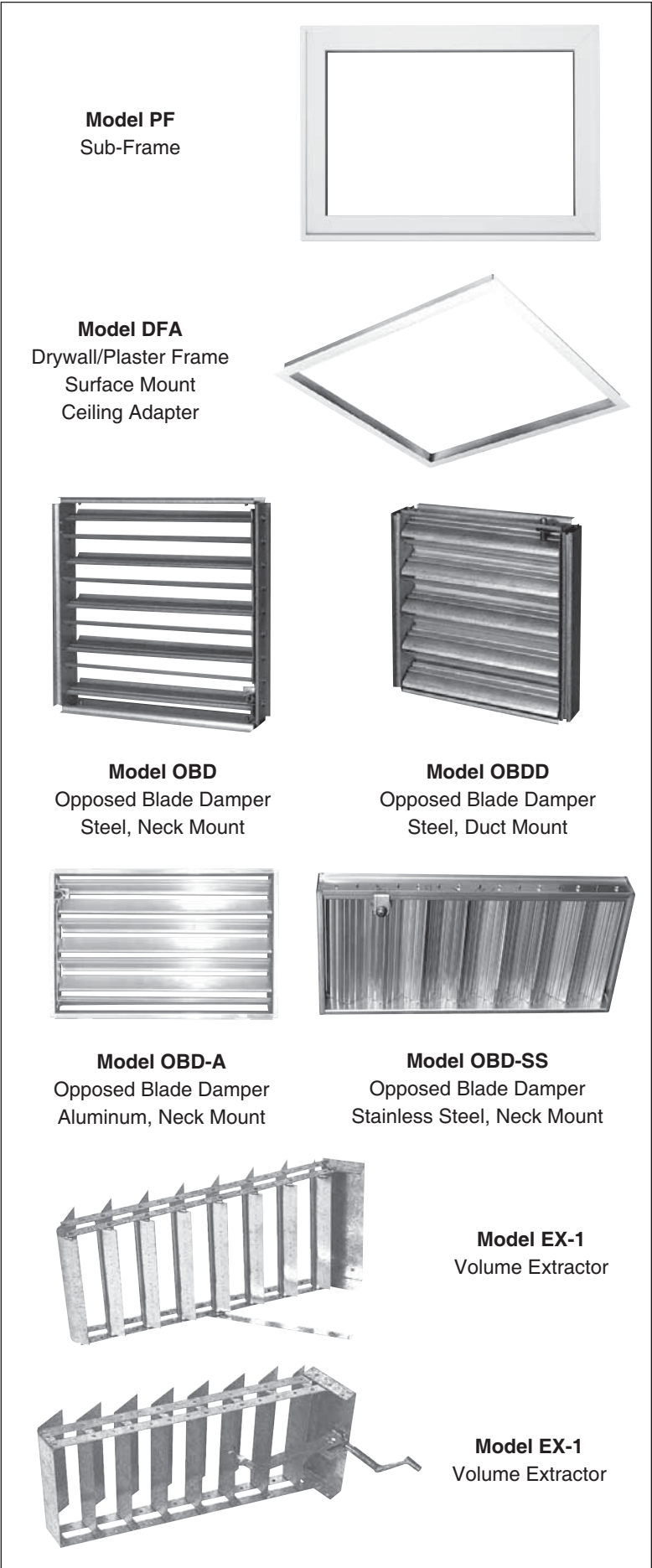
- Opposed blade dampers for every application.
- Volume extractors.

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.

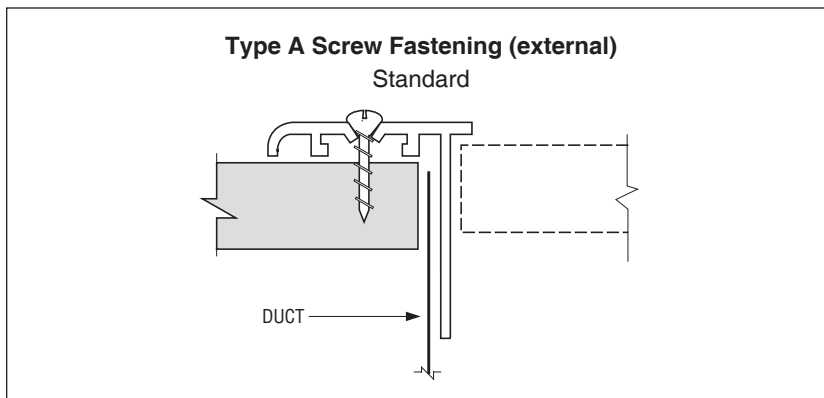


Fastening and Border Frames

Type A Screw Fastening (External)

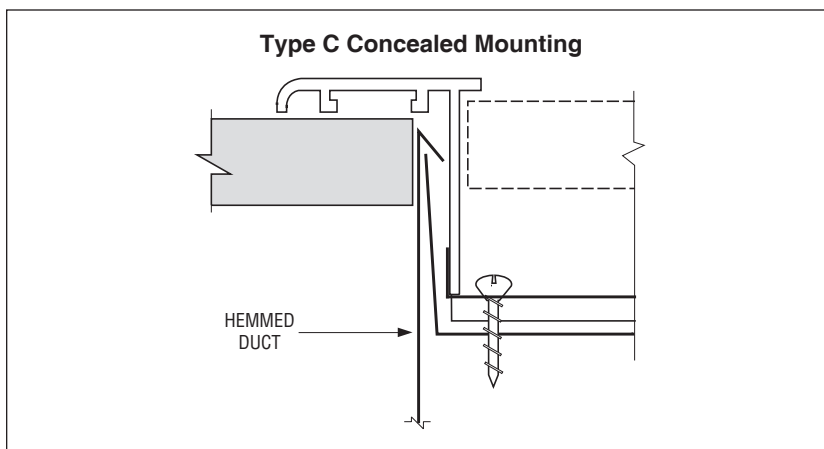
Standard method of fastening for all Nailor grilles and registers in surface mount applications. All Nailor grilles and registers are supplied this way unless specified otherwise. Universal application for all models and cost effective installation.

Screw holes are countersunk in the frame for most models to provide an aesthetically pleasing appearance and are sized for #8 x 1 1/2" (38) oval-head screws which are supplied from the factory packed with each grille or register and are painted to match the specified finish.



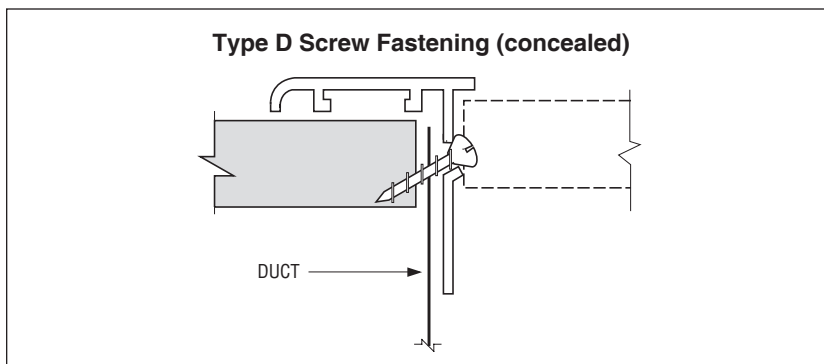
Type C Concealed Mounting

Grilles and registers are supplied with concealed mounting straps (at additional cost) which permit surface mounting with concealed screws, allowing a clean frame appearance. The bracket is shipped loose for installation in the field (by others). The bracket attaches to the back of the grille screws to an adjustable mounting strap which can either be secured directly to the duct wall or hooked into a hem formed in the end of the duct. Not available on return air grilles with 1/2" (13) spacing and a fixed angled blade deflection. Maximum size: 36" x 36" (914 x 914).



Type D Screw Fastening (Concealed)

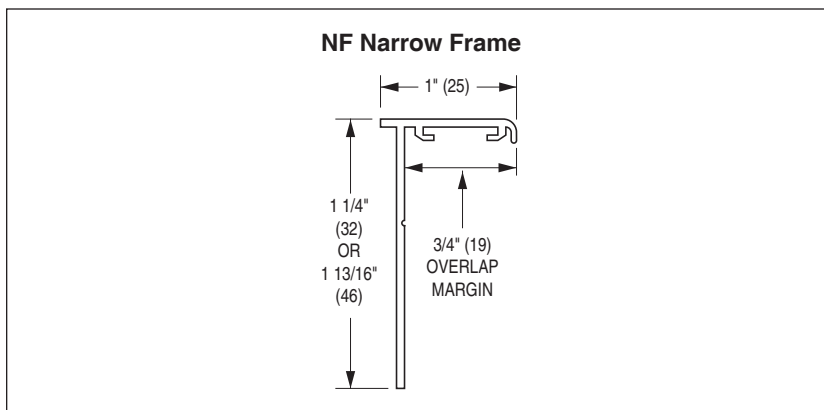
Screw holes are provided in the neck of the grille or register frame. Screws are field installed at an angle through the grille frame and into the ductwork, providing a clean frame appearance. Installation is more difficult than Type A due to the space constriction between the grille blades. Care must be taken not to bend or scratch the grille. Not recommended on return air grilles with a fixed angled blade deflection as accessibility to screw holes is greatly restricted.



Type NF Narrow Frame

An optional reduced 1" (25) wide narrow border frame is available on most aluminum models to satisfy architectural considerations.

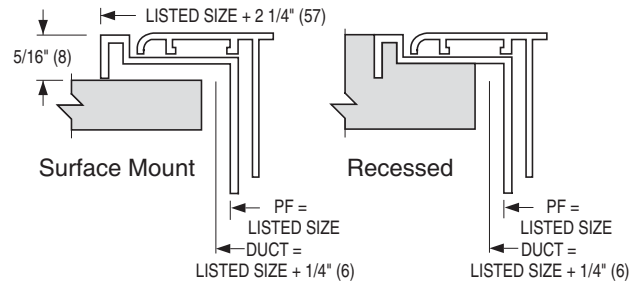
See individual models for availability.



Mounting Frames

PF Plaster/Mounting Frame

Available (at additional cost) with most standard steel and aluminum grilles and registers. The Model PF Plaster Frame is constructed from extruded aluminum and provides a convenient and professional way for finishing off the grille or register opening. It provides a stable anchor for attachment, while enabling the grille or register to be detached and replaced readily without disturbing the finished surface of the wall or ceiling opening. It may be used for surface mounting on various materials or recess mounted in wet plaster.



Model PF Plaster Frame

DFS (Steel), DFA (Aluminum) Drywall/Plaster Frame

The DF Series are for mounting in finished drywall or plaster ceilings to accept any standard lay-in type grille, register, diffuser or other ceiling component. Installation of the air outlet is as simple as inserting them in a standard lay-in T-Bar type ceiling system.

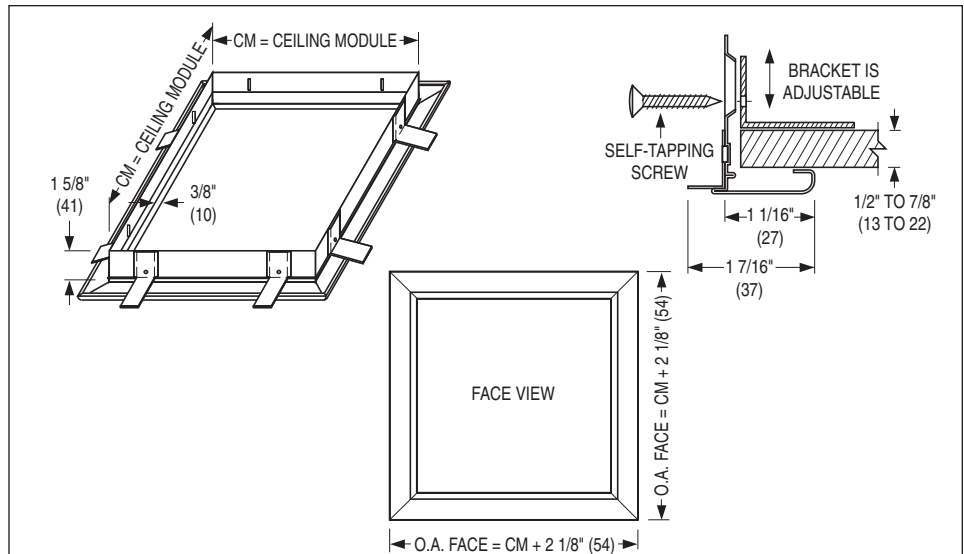
The DF Series simplifies and reduces installation time compared with surface mount type diffusers. This is especially true where flexible duct is utilized. A major benefit is that the DF Series allows access to the ceiling plenum space above for maintenance purposes without the need for separate access doors. The finished appearance is professional and aesthetically pleasing.

Standard Finish: AW Appliance White. Other finishes are available.

Model DFS is installed quickly and easily using adjustable fastening angle brackets which adapt to various ceiling thicknesses. Frames are roll-formed corrosion-resistant steel with staked and mitered corners.

IMPERIAL MODULES		METRIC MODULES
Imperial Units (inches)	S.I. Units (mm)	S.I. Units (mm)
12 x 12	305 x 305	300 x 300
16 x 16	406 x 406	400 x 400
20 x 20	508 x 508	500 x 500
24 x 12	610 x 305	600 x 300
24 x 24	610 x 610	600 x 600

Ceiling opening = CM + 1/4" (6)

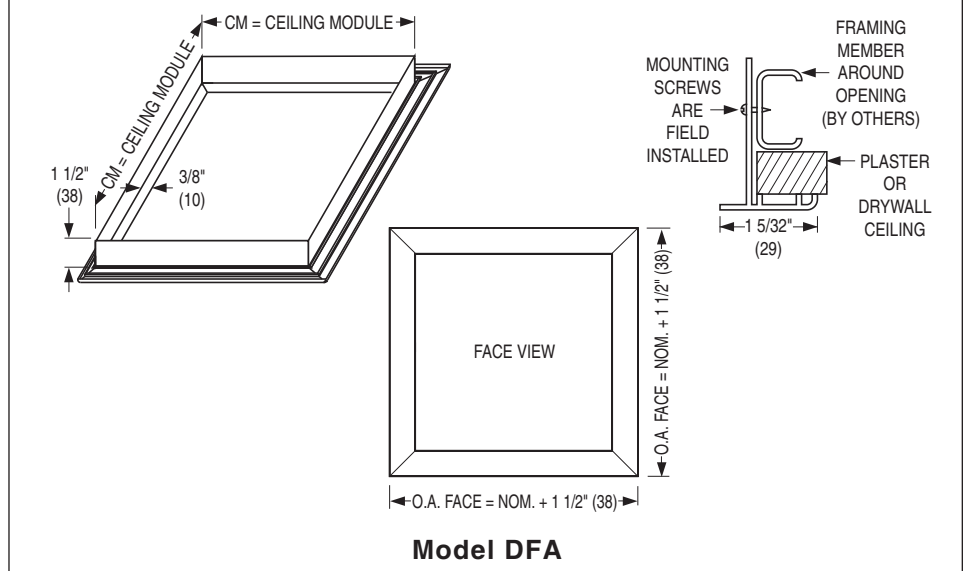


Model DFS

Model DFA requires framing of the ceiling opening with 'C' channel or wood studs for attachment with mounting screws (by others).

IMPERIAL MODULES		METRIC MODULES
Imperial Units (inches)	S.I. Units (mm)	S.I. Units (mm)
12 x 12	305 x 305	300 x 300
16 x 16	406 x 406	400 x 400
20 x 20	508 x 508	500 x 500
24 x 12	610 x 305	600 x 300
24 x 24	610 x 610	600 x 600
36 x 24	914 x 610	900 x 600
48 x 12	1219 x 305	1200 x 300
48 x 24	1219 x 1219	1200 x 600
60 x 12	1524 x 305	1500 x 300

Ceiling opening = CM + 1/4" (6)



Model DFA

Panel Mounting/Ceiling Modules

A panel can be added to the majority of Nailor's steel and aluminum return grilles to suit many special architectural ceiling designs and ceiling module sizes. These panel mount grilles are available in corrosion-resistant steel for the 6100 series steel grilles and both aluminum and corrosion-resistant steel for the 5100 and 7100 series aluminum grilles.

To specify a steel panel; add the suffix S to the end of the selected panel variant. To specify an aluminum panel; add the suffix A to the end of the selected panel variant. e.g. If a steel panel is required with a Spline Type ceiling module, the variant code will become SPS.

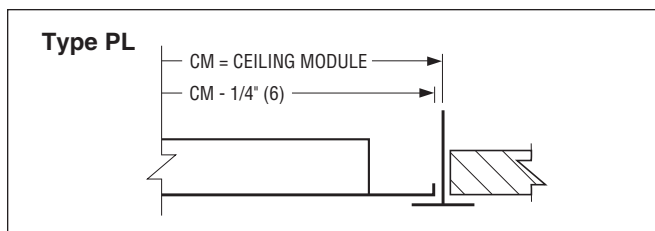
The maximum grille neck sizes available for panel mounting will be the ceiling module size selected - 3" (76).

Available Ceiling Module Sizes

Ceiling Module	
Imperial Units (in.)	Metric Units (mm)
12 x 12	300 x 300
24 x 12	600 x 300
36 x 12	900 x 300
48 x 12	1200 x 300
20 x 20	500 x 500
24 x 24	600 x 600
36 x 24	900 x 600
48 x 24	1200 x 600

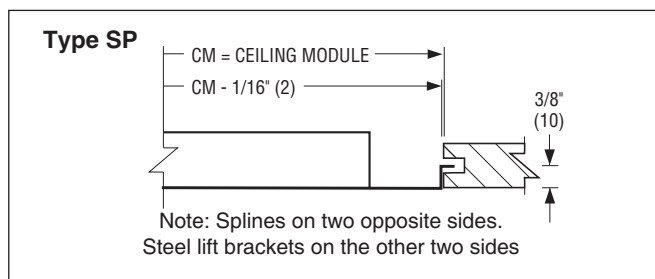
Border Type PL: Lay-in T-Bar

Grille or register is mounted in an extended panel to suit standard T-Bar Lay-in Type ceilings.



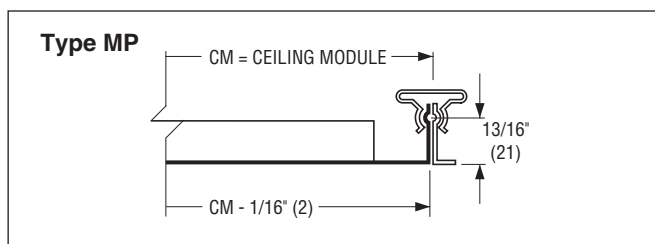
Border Type SP: Spline

The grille or register is mounted in an extended panel to suit spline type ceiling modules.



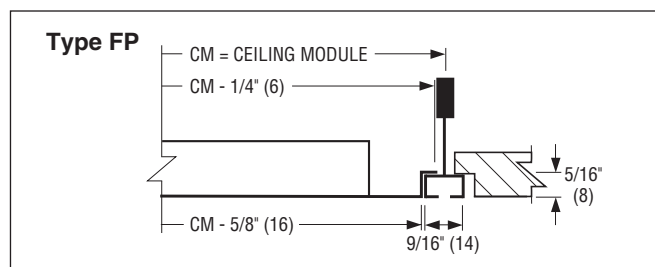
Border Type MP: Metal Pan/Snap-in

The grille or register is mounted in an extended panel to suit metal pan ceilings that have snap-in type ceiling modules.



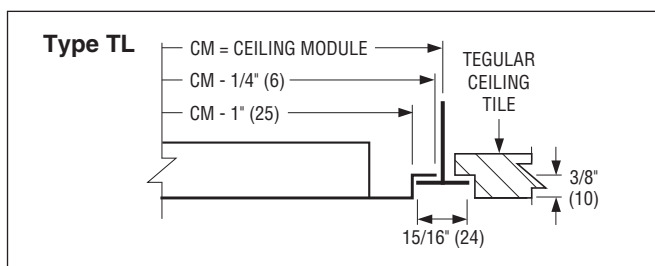
Border Type FP: Narrow Regressed T-Bar (Fineline®)

The grille or register is mounted in an extended panel that will fit a narrow regressed T-Bar ceiling grid.



Border Type TL: Tegular Type T-Bar

The grille or register is mounted in a panel that will extend below the T-Bar ceiling grid.



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).

Sound Reduction for Return Air Grilles

RETURN AIR CROSSTALK ATTENUATOR – STEEL – RETURN AIR GRILLES

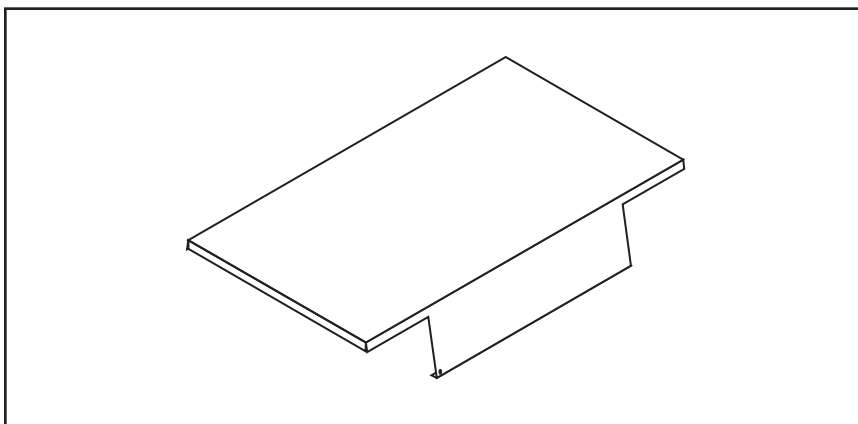
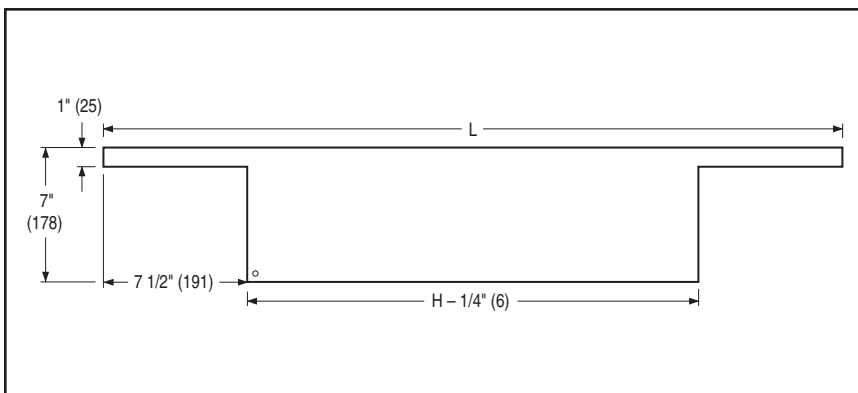
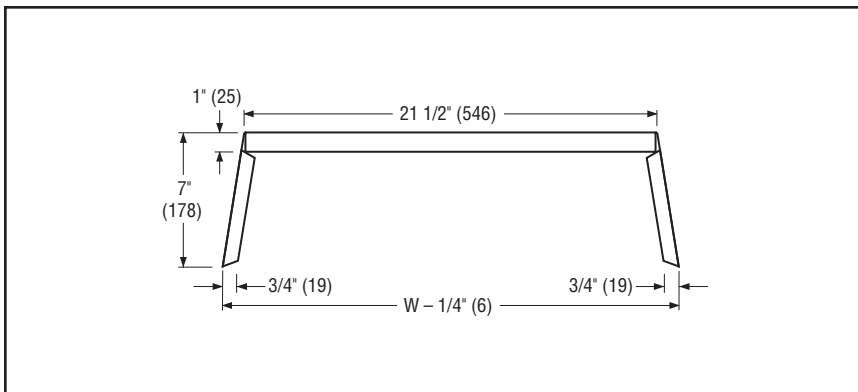
Nailor Model RACA Return Air Crosstalk Attenuator is designed to greatly reduce the amount of sound transferred from the return air plenum through open vents or return grilles, into the adjoining space. For use with non-ducted return grilles in Lay-in T-Bar applications, the RACA allows return air to flow through with minimal pressure drop, while reducing the sound transmission by 7 – 10 NC. Constructed of 22 gauge galvanized steel, the compact, light weight design takes up minimal space in the return plenum, rests on the ceiling grid for easy installation and works effectively as a light shield. Available with 1" (25) fiberglass insulation as standard or optional 1" (25) fiber-free closed cell foam insulation. The RACA fits standard grille sizes and is ideal for interior offices, conference rooms, hotel rooms as well as recording studios.

FEATURES:

- Economical and light- weight design.
- Fits standard grille sizes.
- Easy installation sits on ceiling grid.
- Compact design takes up minimal space in return plenum.
- 1" (25) fiberglass insulation (standard).

DIMENSIONAL DATA:

CM Ceiling Module	W	H	L
12" x 12" (305 x 305)	12" (305)	12" (305)	26 1/2" (673)
24" x 12" (610 x 305)	24" (610)	12" (305)	26 1/2" (673)
20" x 20" (508 x 508)	20" (508)	20" (508)	34 1/2" (876)
24" x 24" (610 x 610)	24" (610)	24" (610)	38 1/2" (978)
30" x 30" (762 x 762)	30" (762)	30" (762)	44 1/2" (1130)
48" x 24" (1219 x 610)	48" (1219)	24" (610)	38 1/2" (978)



Air Balancing Devices

OPPOSED BLADE DAMPERS — STEEL AND ALUMINUM

Nailor Opposed Blade Dampers are manufactured from heavy gauge, roll-formed, corrosion-resistant steel or extruded aluminum blades and frame with miscellaneous steel components.

The gang operated multi-blade design with blades closing at 45 degrees permits fine volume control for accurate balancing with minimum disturbance to the airflow pattern. Blades are individually pivoted on 1" (25) centers.

GRILLE MOUNT MODELS:

OBD Steel

OBD-A Aluminum

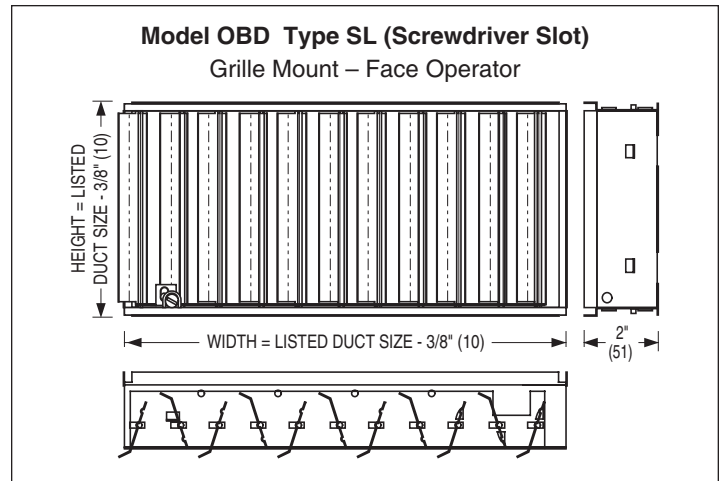
This style of damper mounts directly on the neck of the grille and is sized to fit most Nailor grilles. Uses steel barbed S-clips for easy field mounting or removal when ordered separately. Supplied as standard with a screwdriver slot operator (Type SL) on supply registers and a screwdriver pivot lever operator (Type PL) on fixed, angled deflection return registers. Type SL operator is standard if damper is ordered separately from grille. A lever operator (Type GL) is available as an option on fixed, angled deflection return registers.

Can be specified as an integral part of the grille (register) by adding a - O (steel) or - OA (aluminum) suffix to the grille model.

Min. Size = 4" x 2 1/2" (102 x 64) Max. Size = 24" x 24" (610 x 610).

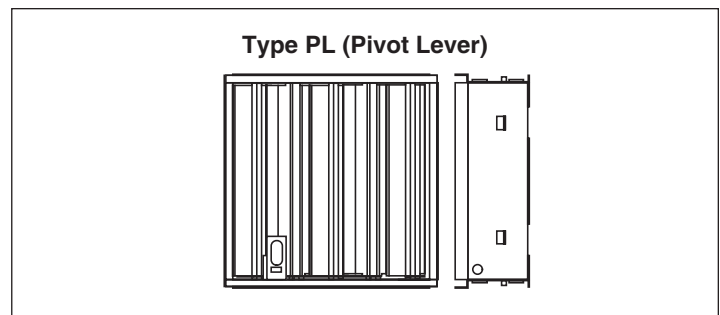
Type SL Operator

The SL Operator incorporates a screwdriver slot, which adjusts from the face of the register. This operator is the standard supplied with supply air registers such as the single and double deflection adjustable blade.



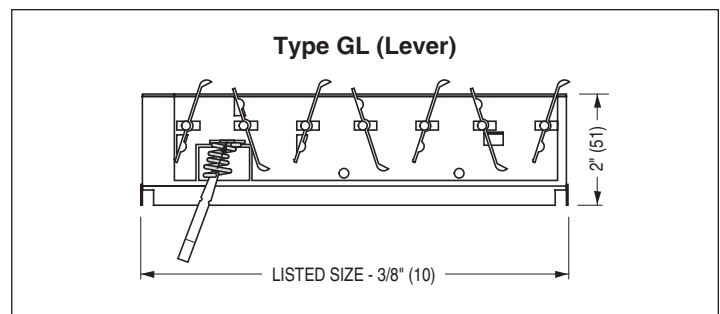
Type PL Operator

The PL Operator is a concealed pivot lever, which is adjusted from the face of the register using a screwdriver. This operator is for use only on fixed blade, angled deflection, return air grilles. When specifying, the blade orientation of the damper must be opposite of the grille.



Type GL Operator

The GL Operator incorporates a lever that adjusts without the use of tools. The lever operator extends through the grille face and is an alternative for fixed blade, angled deflection, return air grilles. When specifying, the blade orientation of the damper must be opposite of the grille being used and the grille model must be specified.



Air Balancing Devices

DUCT MOUNT MODELS:

OBDD Steel

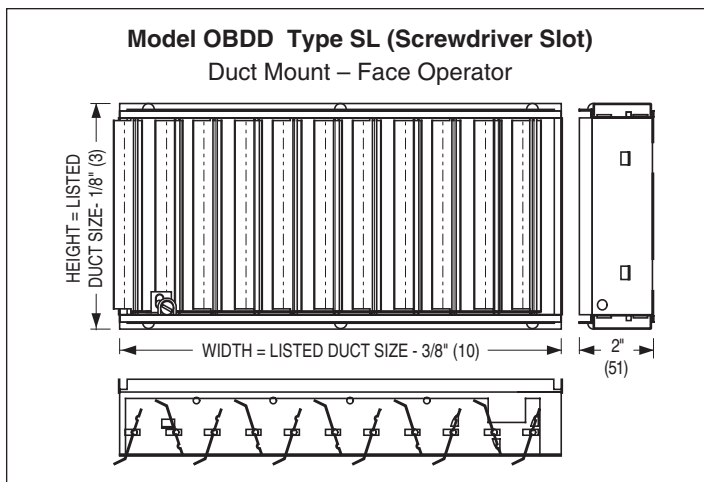
OBDD-A Aluminum

Designed for field installation, this damper mounts independently in the duct, separate from and behind the grille. Sized to suit and offer a friction fit in nominally sized ducts. Secure the dampers with 1/2" (13) long sheet metal screws (by others) through the double walled sub-frame. Supplied as standard with a screwdriver slot operator (Type SL).

Min. Size = 4" x 2 1/2" (102 x 64) Max. Size = 24" x 24" (610 x 610)

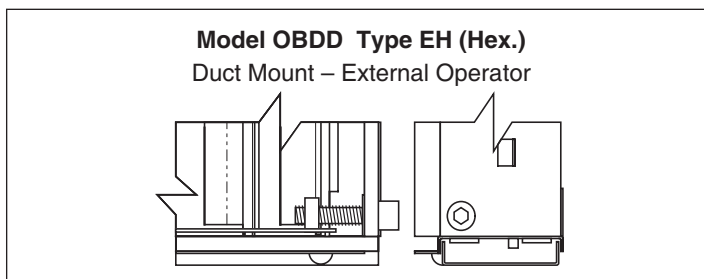
Type SL Operator

These models are supplied with a screwdriver slot face operator that is accessed from inside the duct by removing the grille.



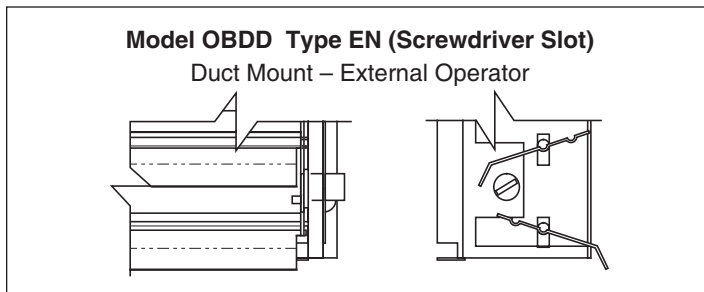
Type EH Operator

The EH Operator incorporates an external hex device that penetrates the duct wall to provide control. For use with 3/16" (5) Allen key wrench (by others).



Type EN Operator

The EN Operator incorporates an external (nylon) screwdriver slot device. This device is controlled externally through the duct.



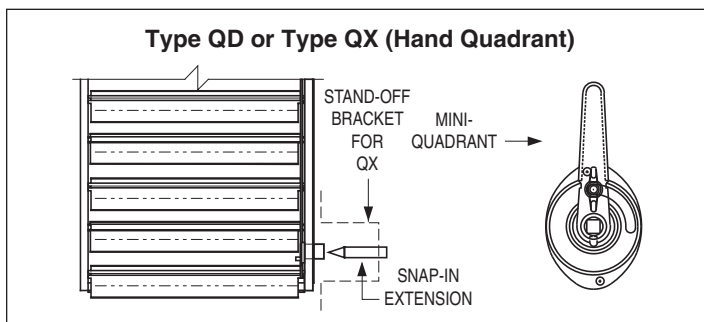
Type QD Operator *

The QD Operator includes a nylon snap-in extension that fits an external (nylon) operator. This device also includes a hand locking quadrant operator for control and position indication.

Type QX Operator *

The QX Operator includes a nylon snap-in extension that fits an external (nylon) operator. This device also includes a 2" (51) stand-off bracket and hand locking quadrant for control and position indication. To ensure quadrant is located on vertical side of duct, specify damper with blades parallel to the horizontal duct dimension.

*Not available on Model OBDD-A



Air Balancing Devices

OPPOSED BLADE DAMPERS — STAINLESS STEEL

Nailor Stainless Steel Opposed Blade Dampers feature heavy gauge, roll-formed blades and a heavy duty frame in all stainless steel construction. Type 304 stainless steel is standard with Type 316 as an available option.

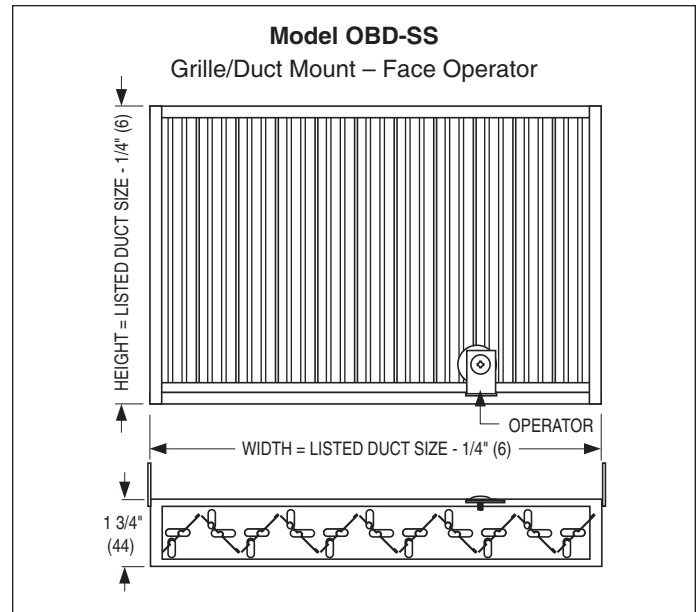
The gang operated multi-blade design with blades closing at 45 degrees permits fine volume control for accurate balancing with minimum disturbance to the airflow pattern. Blades are individually pivoted on 1" (25) centers.

GRILLE/DUCT MOUNT MODELS:

OBD-SS Stainless Steel

When ordered as part of the stainless steel grille, (using the suffix '-O' on the model number), the dampers are factory welded to the grille frame to provide a secure non-removable connection. If the dampers are ordered separately, they are supplied with mounting tabs. The tabs allow the dampers to be field installed onto a grille or to be mounted independently in the duct, separate from and behind the grille.

All Nailor stainless steel dampers feature a Philip's head screwdriver operator that is accessed through the face of the grille.



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).

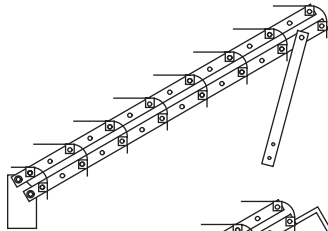
FEATURES:

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

Operator Types

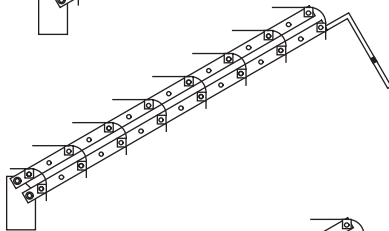
EX/EXD-1

Standard unit with adjusting strap.



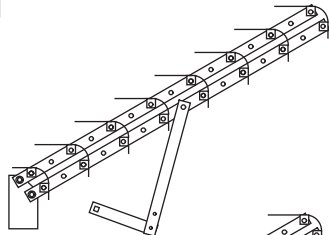
EX/EXD-1-R

Rod operator for external operation.



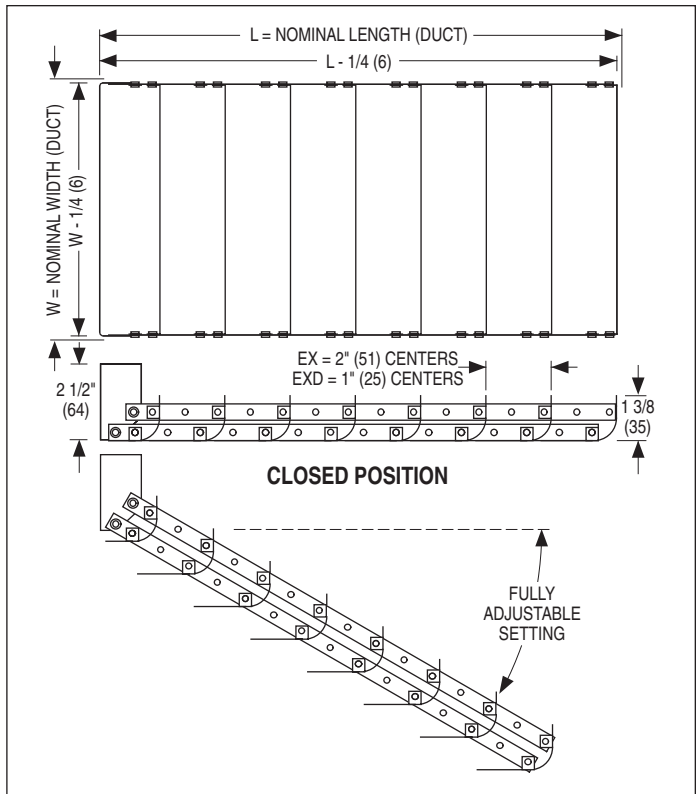
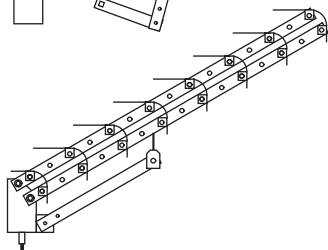
EX/EXD-2

Linkage with 7/16" (11) square hole (2 per unit). Remote operator (eg. Young Regulator #1) by others.



EX/EXD-3

Screw gear operator. Adjusts with 3/16" (48) wrench (by others).



Optional Accessories

RLD

Locking device for Models **EX/EXD-1-R**.

