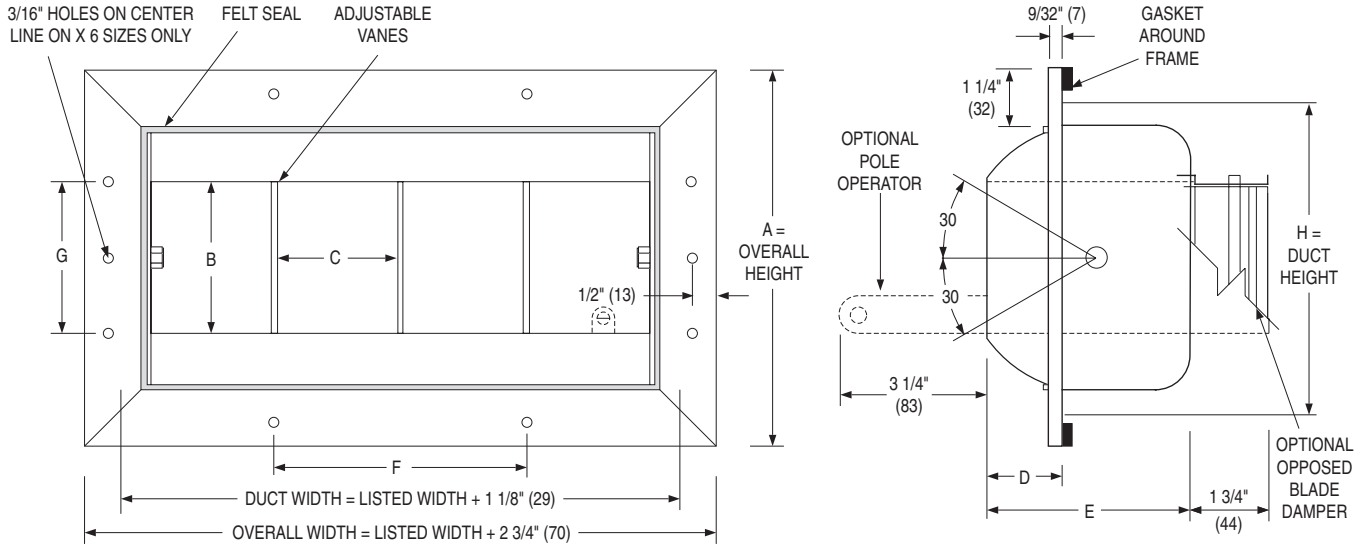




**INDUSTRIAL SUPPLY GRILLES**  
**DRUM LOUVER • ALUMINUM • HIGH CAPACITY**  
**MODEL: 45DL1**  
**(ADD -0 FOR OPTIONAL OBD)**



**AVAILABLE SIZES AND DIMENSIONAL DATA**

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 (318)	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)

**DESCRIPTION:**

1. Material: Extruded Aluminum.
2. Model 45DL1 is designed to handle large air capacities and provide long throws. It is ideally suited to applications where ductwork cannot be brought close to the occupants such as; shopping malls, industrial plants and stadiums.
3. Length of throw, direction and horizontal spread can be controlled by means of the rotating drum and pivoted adjustable vanes.
4. Felt seal around drum minimizes air leakage.
5. Standard finish is AW Appliance white.

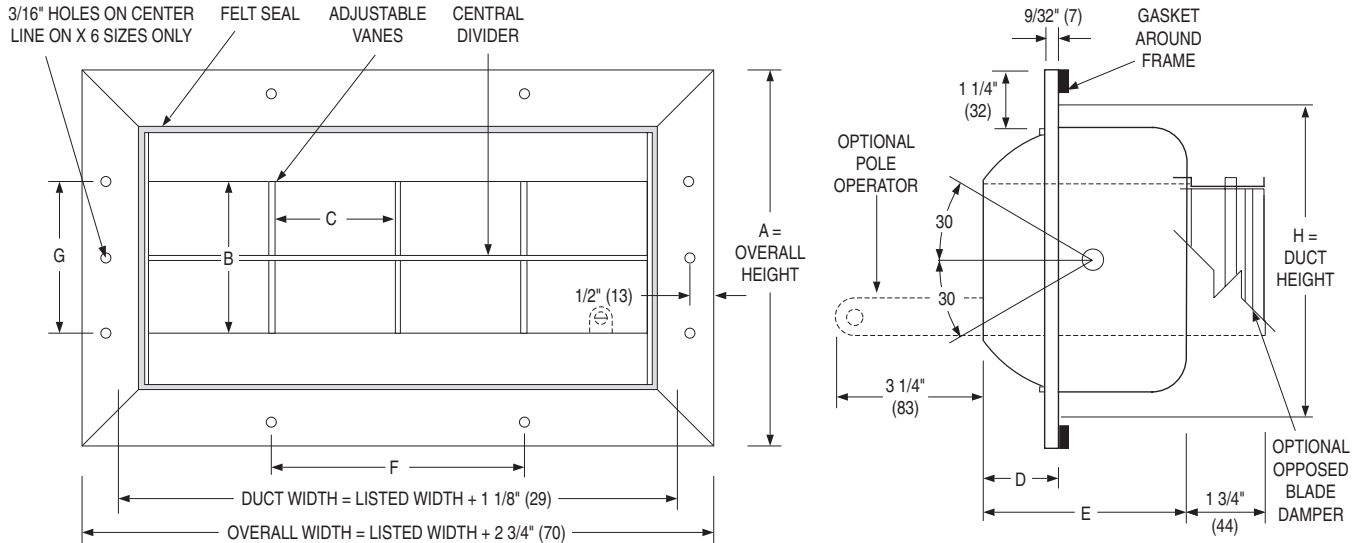
**OPTIONS:**

- Opposed blade damper. Model 45DL1-0  
(Note: Not recommended where static pressure drop across drum louver exceeds 0.25" w.g.).
  - PB Pole Operator
- Finish:
- AL Aluminum
  - MI Mill
  - SP Special \_\_\_\_\_ .

<b>SCHEDULE TYPE:</b>	Dimensions are in inches (mm).			
<b>PROJECT:</b>				
<b>ENGINEER:</b>	<b>DATE</b>	<b>B SERIES</b>	<b>SUPERSEDES</b>	<b>DRAWING NO.</b>
<b>CONTRACTOR:</b>	11 - 5 - 18	4500	5 - 19 - 10	45DL1



**INDUSTRIAL SUPPLY GRILLES**  
**DRUM LOUVER • ALUMINUM • HIGH CAPACITY**  
**MODEL: 45DL2**  
**(ADD -0 FOR OPTIONAL OBD)**



**AVAILABLE SIZES AND DIMENSIONAL DATA**

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 (318)	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)

**DESCRIPTION:**

1. Material: Extruded Aluminum.
2. Model 45DL2 is designed to handle large air capacities and provide long throws. It is ideally suited to applications where ductwork cannot be brought close to the occupants such as; shopping malls, industrial plants and stadiums.
3. Model 45DL2 incorporates two sets of pivoted adjustable deflecting vanes separated by a central divider, When the top and bottom set of vanes are set in opposite directions, the resulting turbulent counter-flow increases induction for more rapid mixing and shortens the throw.
4. Felt seal around drum minimizes air leakage.
5. Standard finish is AW Appliance white.

**OPTIONS:**

- Opposed blade damper. Model 45DL2-0  
(Note: Not recommended where static pressure drop across drum louver exceeds 0.25" w.g.).
  - PB Pole Operator
- Finish:
- AL Aluminum
  - MI Mill
  - SP Special \_\_\_\_\_ .

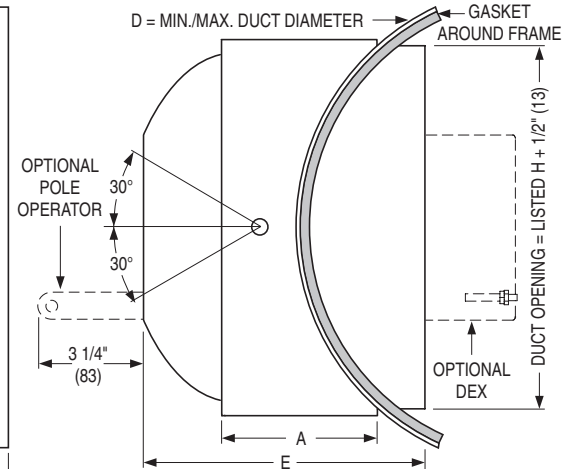
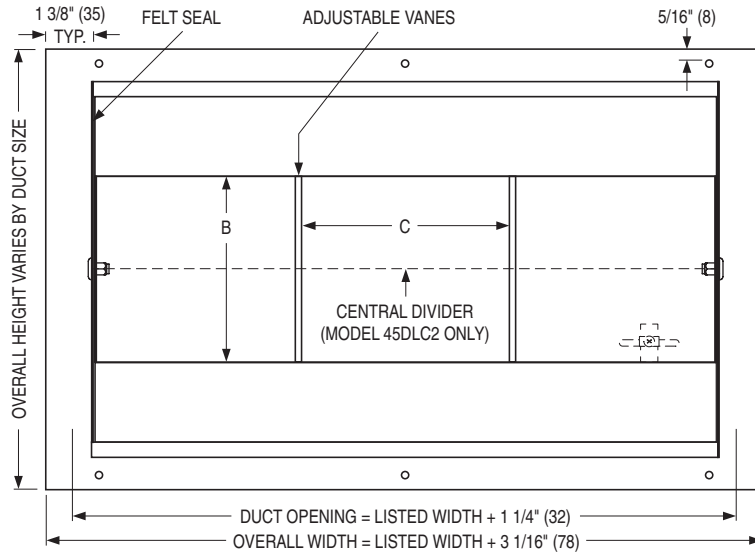
<b>SCHEDULE TYPE:</b>		Dimensions are in inches (mm).			
<b>PROJECT:</b>					
<b>ENGINEER:</b>	<b>DATE</b>	<b>B SERIES</b>	<b>SUPERSEDES</b>	<b>DRAWING NO.</b>	
<b>CONTRACTOR:</b>	11 - 5 - 18	4500	5 - 21 - 10	45DL2	



**DRUM LOUVER • HIGH CAPACITY**  
**INDUSTRIAL SUPPLY GRILLES • ALUMINUM**  
**MODELS: 45DLC1 & 45DLC2 SPIRAL DUCT MOUNT**

45DLC1 Adjustable Vanes

45DLC2 Split Vanes



**AVAILABLE SIZES AND DIMENSIONAL DATA**

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	-	-	-	-	-	-
	60 x 6	19	-	-	-	-	-	-

Dimensions in Inches (mm)	A	2 3/4 (70)	4 1/2 (114)	5 1/2 (140)	7 (178)
	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	10 - 60 (254 - 1524)	14 - 60 (356 - 1524)	16 - 60 (406 - 1524)	20 - 60 (508 - 1524)
	E	5 (127)	8 1/8 (206)	9 9/16 (243)	11 9/16 (294)

**DESCRIPTION:**

1. Material: Aluminum.
2. Models 45DLC1/45DLC2 are designed to handle large air capacities and provide long throws. It is ideally suited for applications where ductwork cannot be brought close to the occupants in large conditioned spaces such as; shopping malls, industrial plants and stadiums.
3. Curved frame installs directly on spiral ducts without the use of duct taps.

4. Length of throw, direction and horizontal spread can be controlled by means of the rotating drum and pivoted adjustable vanes.
5. Felt seal around drum minimizes air leakage and holds drum secure in selected position.
6. 45DLC2 Split Vane option allows bi-directional horizontal throw.
7. Standard finish is AW Appliance white.

**OPTIONS:**

- OBD Opposed Blade Damper
  - DEX Damper/Extractor (Air Scoop)
  - PB Pole Operator
- Finish:
- AL Aluminum
  - MI Mill
  - SP Special \_\_\_\_\_

Dimensions are in inches (mm).

<b>SCHEDULE TYPE:</b>				
<b>PROJECT:</b>				
<b>ENGINEER:</b>				
<b>CONTRACTOR:</b>				
<b>DATE</b>	<b>B SERIES</b>	<b>SUPERSEDES</b>	<b>DRAWING NO.</b>	
6 - 25 - 20	4500	12 - 4 - 17	45DLC-1	

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

**NAILOR POWDER COAT PROPERTIES**

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

**ELECTROCOATING PROPERTIES**

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


**POWDER COAT**

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

**ELECTROCOATING**

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

**CLEAR ANODIZING** (Aluminum products only)

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

**COLOR ANODIZING** (Aluminum products only)

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

**BRUSHED AND CLEAR COAT**

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

**#4 BRUSHED SATIN POLISHED** (Stainless Steel products only)

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

**PRIME COAT**

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

**PAINT PREPARED ALUMINUM** (Aluminum products only)

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

**MILL FINISH**

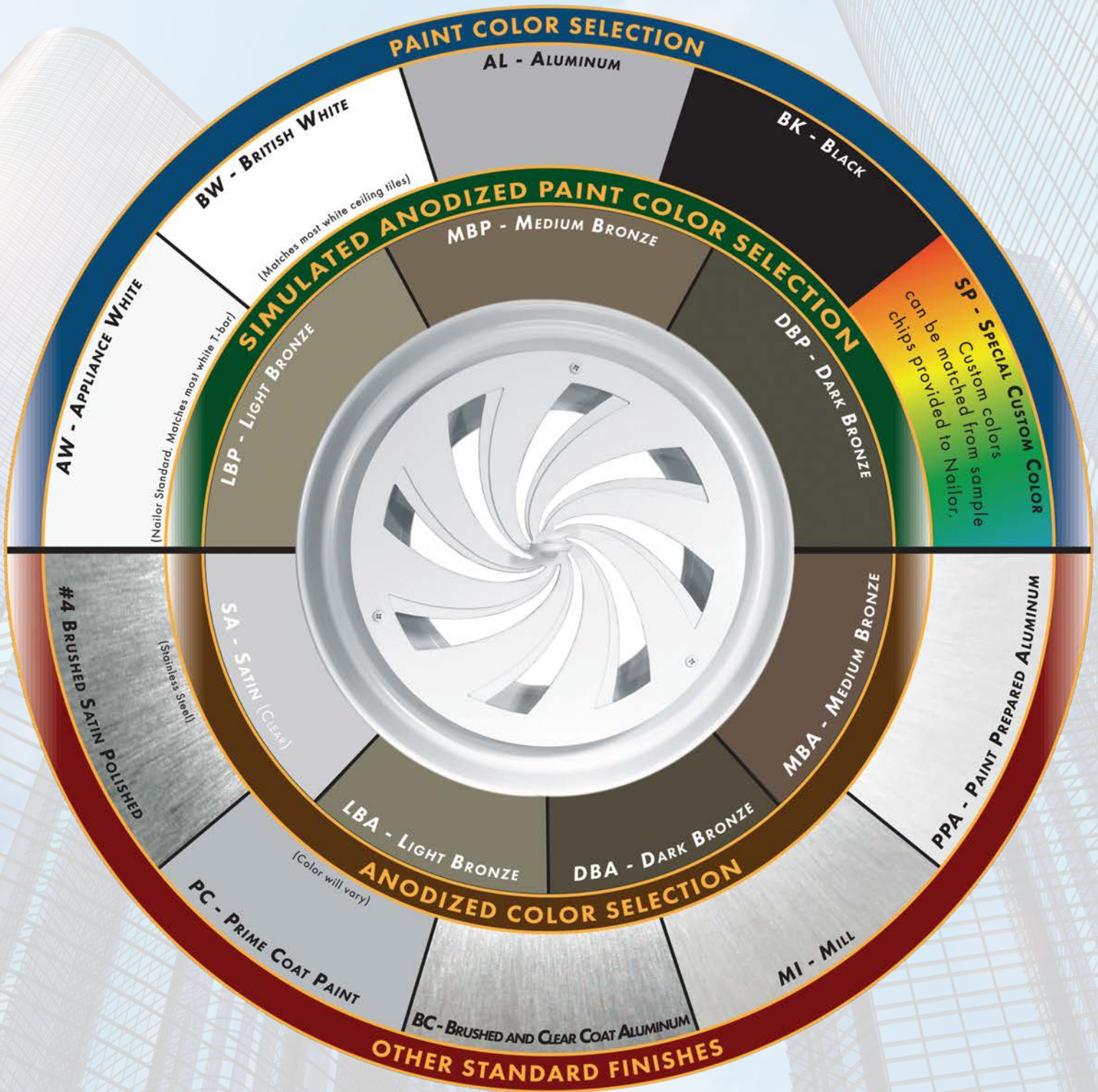
Surface is left untreated and requires cleaning, degreasing, etc. in the field before final finish can be applied if required.



**Nailor**<sup>®</sup>  
Industries Inc.

## STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

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



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

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

"Complete Air Control and Distribution Solutions."

WGDSOF2015

[www.nailor.com](http://www.nailor.com)

## 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<sup>-12</sup> 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	5600	6400	8000	9600
	Total Pressure	.03	.06	.11	.17	.22	.30	.38	.58	.83
	Throw	32-42-72	42-54-100	52-72-120	62-74-140	72-100-170	82-110-190	92-120-240	110-140-260	120-160-290
	Noise Criteria	–	–	25	31	36	41	45	52	55

**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<sup>-12</sup> 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 • 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<sup>-12</sup> 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 • 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<sup>-12</sup> 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