

# SERIES DLA, DLAM & DLAI



## MODEL SERIES DLA, DLAM & DLAI

### Aluminum Louvered Face Diffusers Fixed Directional Pattern, High Capacity

**DLA** aluminum supply diffusers are recommended for heating, ventilating and cooling.

Designed for high capacity, Airvector®'s Model Series DLA can supply large volumes of air at low sound levels and pressure drops. DLA directional diffusers are offered in all standard square dimensions with a variety of cores to provide any required air pattern.

**DLA** Series feature a square neck, **DLAM** Series feature a round neck and **DLAI** Series feature an R6 insulated back, pre-scored for 6"-14" round collars.

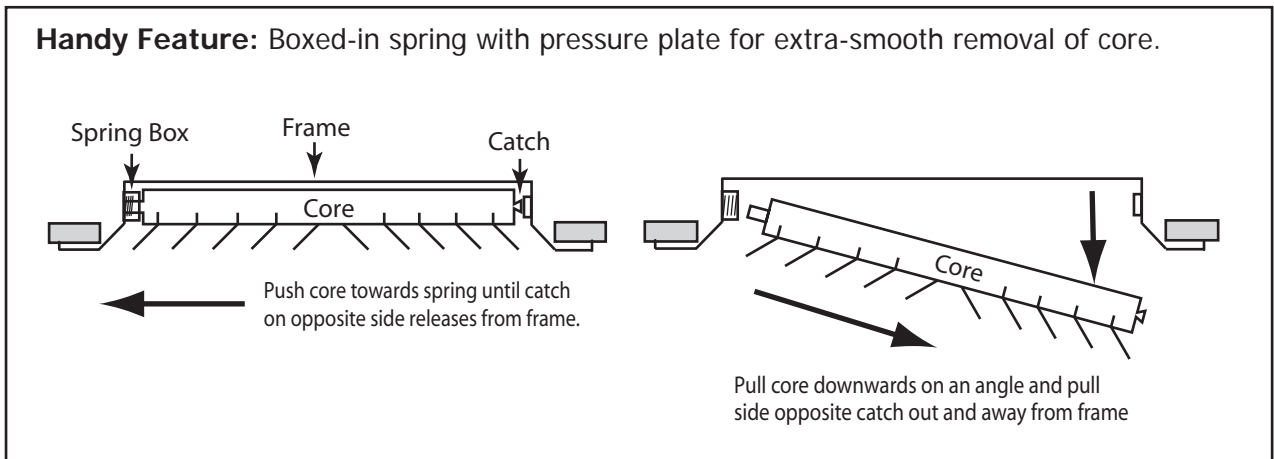
Core is removable to facilitate access to duct.



**DLA**

### FEATURES

- Full Face 12"x12", 15"x15", 18"x18", 21"x21" and 24"x24"
- 1 Way, 2 Way Opposed, 2 Way Corner, 3 Way or 4 Way
- Commercial-grade aluminum construction
- Core can be easily removed without tools
- Ideal for VAV systems
- Powder paint coating - White



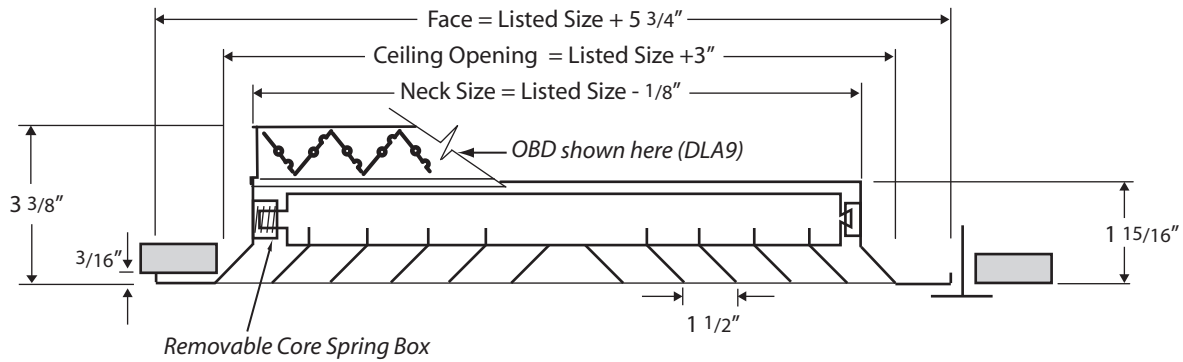
Directional Patterns					
<b>W1</b>	1 Way	<b>WC</b>	2 Way Corner	<b>WO</b>	2 Way Opposed
				<b>W3</b>	3 Way
				<b>W4</b>	4 Way

Border Types		Mounting		
<b>F</b> Flat Frame	<b>B</b> Beveled Frame	<b>0</b> Lay-In	<b>1</b> Screw Holes	<b>4</b> Concealed
	 N/A for DLAI		 N/A for DLAI or Beveled Frame	 N/A for DLAI

## MODEL SERIES DLA

MODEL **DLA** Square Neck

MODEL **DLA9** Square Neck With Aluminum Opposed Blade Damper (N9)



**HANDY FEATURE:** One standard model suits both T-Bar and Drywall installations using rigid ducting.

### HOW TO ORDER

**DLA-F-0-W4 1818 /W**

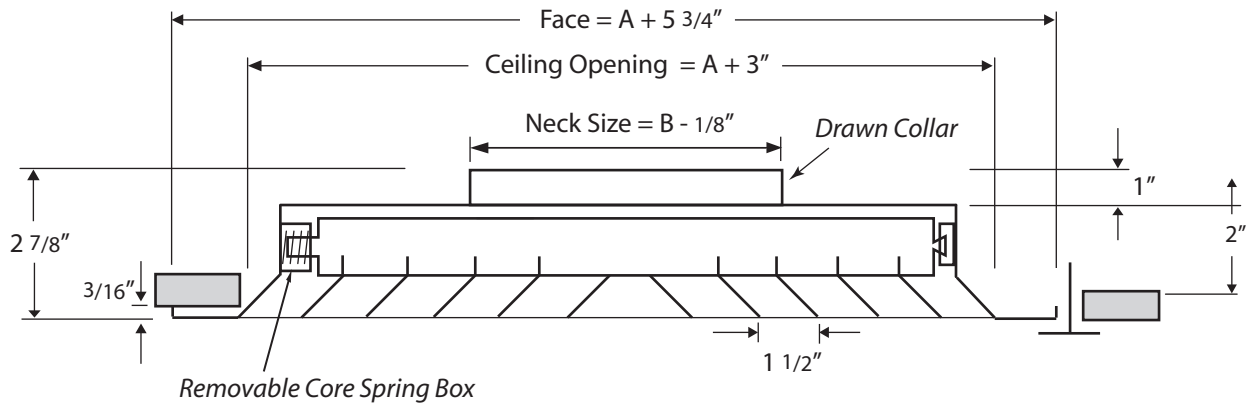
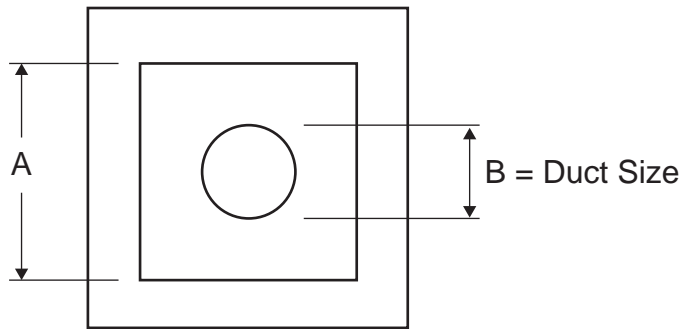
<b>MODEL SERIES</b> Square Neck <b>DLA</b> Square Neck w/ OBD <b>DLA9</b>	<b>FINISH (OPTIONAL)</b> Standard is White ( <b>/W</b> ) See chart for more
<b>BORDER TYPE (OPTIONAL)</b> Standard is flat frame Flat Frame <b>-F</b> Beveled Frame <b>-B</b>	<b>DUCT DIMENSIONS</b> 6" x 6" <b>0606</b> 9" x 9" <b>0909</b> 12" x 12" <b>1212</b> 15" x 15" <b>1515</b> 18" x 18" <b>1818</b>
<b>MOUNTING (OPTIONAL)</b> Standard is Lay-In Lay-In <b>-0</b> Screw Holes <b>-1</b> Concealed <b>-4</b>	<b>DIRECTION (OPTIONAL)</b> Standard is 4 Way 1 Way <b>-W1</b> 2 Way Corner <b>-WC</b> 2 Way Opposed <b>-W0</b> 3 Way <b>-W3</b> 4 Way <b>-W4</b>

## MODEL SERIES DLAM

MODEL **DLAM** Round Neck

MODEL **DLAM4** Round Neck With Radial Opposed Blade Damper (N4)

MODEL **DLAM5** Round Neck With Radial Sliding Blade Damper (N5)



**HANDY FEATURE:** One standard model suits both T-Bar and Drywall installations using rigid ducting.

**HOW TO ORDER**

**DLAM-F-0-W4 1818 08 /W**

<b>MODEL SERIES</b>	Round Neck, No Damper	<b>DLAM</b>
	With N4 OBD	<b>DLAM4</b>
	With N5 Radial Damper	<b>DLAM5</b>

**BORDER TYPE (OPTIONAL)**  
Standard is flat frame

Flat Frame	<b>-F</b>
Beveled Frame	<b>-B</b>

**MOUNTING (OPTIONAL)**  
Standard is Lay-In

Lay-In	<b>-0</b>
Screw Holes	<b>-1</b>
Concealed	<b>-4</b>

**DIRECTION (OPTIONAL)**  
Standard is 4 Way

1 Way	<b>-W1</b>
2 Way Corner	<b>-WC</b>
2 Way Opposed	<b>-W0</b>
3 Way	<b>-W3</b>

**SQUARE TO ROUND NECK DIAMETER**

6"	<b>06</b>
8"	<b>08</b>
10"	<b>10</b>
12"	<b>12</b>
14"	<b>14</b>
16"	<b>16</b>

**SQUARE NECK DIMENSIONS**

6" x 6"	<b>0606</b>
9" x 9"	<b>0909</b>
12" x 12"	<b>1212</b>
15" x 15"	<b>1515</b>
18" x 18"	<b>1818</b>

**FINISH (OPTIONAL)**  
Standard is White (**/W**)  
See chart for more

**Dampers Available**

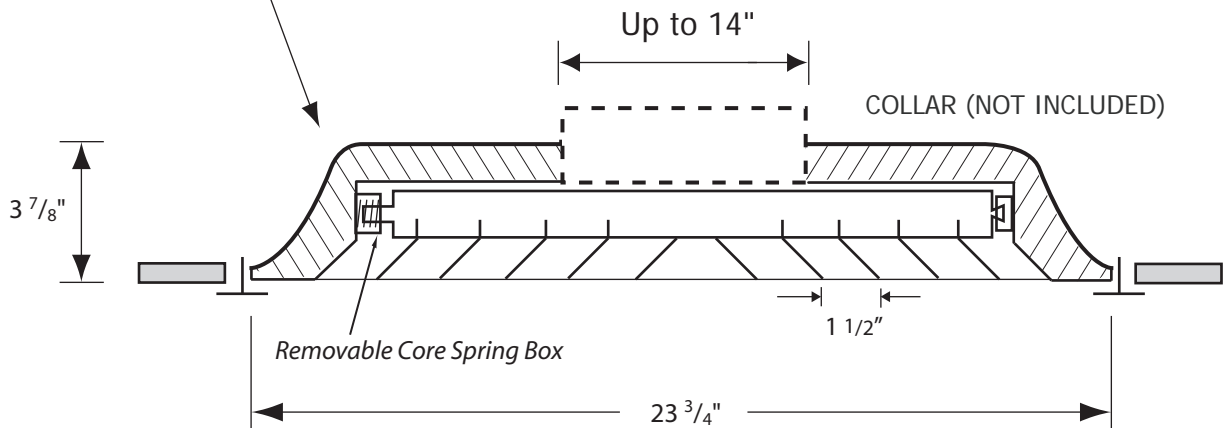
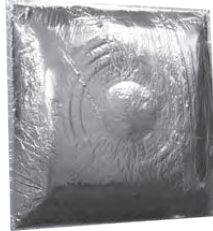
<b>DLAM4</b>	With Radial Opposed Blade Damper
<b>DLAM5</b>	With Radial Sliding Blade Damper

## MODEL SERIES DLAI

MODEL DLAI R6 Molded Fiberglass Insulated Back, Pre-Scored for Collars 6"-14"

R6 fiberglass back complies with A.S.T.M. E84 flame and smoke test.

Scored for collar sizes up to 14" D. Contractor to install job-specific collar in field.



### HOW TO ORDER

**DLAI-W4 /W**

**MODEL SERIES**

24"x24", R6 Insulated **DLAI**

**FINISH (OPTIONAL)**





















Standard is White (**/W**)  
See chart for more

**DIRECTION (OPTIONAL)**

Standard is 4 Way

- 1 Way **-W1**
- 2 Way Corner **-WC**
- 2 Way Opposed **-W0**
- 3 Way **-W3**
- 4 Way **-W4**

## TABLE 1 - PERFORMANCE DATA - SQUARE NECK

Duct Size Blow Pattern	Neck Velocity Velocity Press. Total Press.	300 .006 .030	400 .010 .051	500 .016 .080	600 .022 .118	700 .031 .160	800 .040 .210	900 .050 .260	
6" .25 SQ. FT.	Total CFM NC	75 -	100 -	125 17	150 22	175 26	200 31	225 34	
		A B	A B	A B	A B	A B	A B	A B	
	 A	CFM/Side Throw (ft)	19 4-5-8	25 5-6-9	31 6-8-10	37 6-8-11	44 8-9-12	50 8-9-12	56 9-10-13
	 B	CFM/Side Throw (ft)	19 28 4-5-8 5-8-11	25 38 5-6-9 5-6-9	31 47 6-8-10 8-10-14	38 56 6-8-11 8-11-15	44 66 8-9-12 9-12-16	50 75 8-9-12 9-12-17	56 84 9-10-13 10-13-18
	 A	CFM/Side Throw (ft)	38 8-9-12	50 9-10-14	62 10-11-16	75 11-12-17	88 12-13-18	100 12-14-19	113 13-15-22
 A	CFM/Side Throw (ft)	75 9-11-15	100 10-12-17	125 11-14-19	150 12-15-22	175 13-16-22	200 14-17-24	225 15-18-25	
9" .56 SQ. FT.	Total CFM NC	170 -	225 -	280 20	340 26	395 31	450 35	505 38	
		A B	A B	A B	A B	A B	A B	A B	
	 A	CFM/Side Throw (ft)	42 5-6-10	56 6-8-11	70 8-9-12	84 8-10-13	98 9-10-14	113 9-11-15	126 10-12-16
	 B	CFM/Side Throw (ft)	42 63 5-6-10 8-10-13	56 85 6-8-11 9-11-15	70 106 8-9-12 10-12-17	84 127 8-10-13 11-13-18	98 148 9-10-14 12-14-19	112 169 9-11-15 12-15-22	126 190 10-12-16 13-16-22
	 A	CFM/Side Throw (ft)	84 9-10-15	112 11-13-18	141 12-15-20	169 13-16-22	197 14-17-23	225 15-18-25	253 16-19-28
 A	CFM/Side Throw (ft)	169 12-15-20	225 14-17-23	282 16-19-26	338 17-22-29	394 18-22-31	450 19-24-33	507 22-25-35	
12" 1.0 SQ. FT.	Total CFM NC	300 -	400 17	500 23	600 28	700 32	800 35	900 38	
		A B	A B	A B	A B	A B	A B	A B	
	 A	CFM/Side Throw (ft)	75 6-9-11	100 8-10-13	125 9-11-15	150 10-12-16	175 10-13-17	200 11-14-18	225 12-15-19
	 B	CFM/Side Throw (ft)	75 113 6-9-11 9-11-15	100 150 8-10-13 10-12-17	125 187 9-11-15 11-14-19	150 225 10-12-16 12-15-22	175 263 10-13-17 13-16-22	200 300 11-14-18 14-17-24	225 338 12-15-19 15-18-25
	 A	CFM/Side Throw (ft)	150 11-13-18	200 13-15-22	250 15-17-24	300 16-18-26	350 17-19-28	400 18-22-30	450 19-22-32
 A	CFM/Side Throw (ft)	300 14-17-24	400 16-19-28	500 18-22-32	600 19-23-34	700 22-25-36	800 23-27-38	900 24-29-41	
15" 1.56 SQ. FT.	Total CFM NC	465 -	625 19	780 25	935 29	1090 33	1250 37	1400 41	
		A B	A B	A B	A B	A B	A B	A B	
	 A	CFM/Side Throw (ft)	117 8-10-13	156 9-11-15	195 10-12-17	234 11-13-18	273 12-14-19	313 12-15-22	351 13-16-24
	 B	CFM/Side Throw (ft)	117 176 8-10-13 11-13-18	156 234 9-11-15 13-15-22	195 292 10-12-17 15-17-24	234 352 11-13-18 16-18-26	273 410 12-14-19 17-19-28	313 469 12-15-22 18-22-30	351 527 13-16-24 19-22-32
	 A	CFM/Side Throw (ft)	234 13-16-22	313 15-18-25	390 17-20-29	468 18-22-32	546 19-23-34	625 22-25-36	701 22-28-38
 A	CFM/Side Throw (ft)	468 16-19-28	625 18-22-32	780 20-25-36	936 22-28-39	1092 23-30-42	1250 25-32-44	1405 28-34-47	
18" 2.25 SQ. FT.	Total CFM NC	675 12	900 20	1125 27	1350 31	1575 35	1800 39	2025 42	
		A B	A B	A B	A B	A B	A B	A B	
	 A	CFM/Side Throw (ft)	168 9-11-15	225 10-12-17	281 11-14-19	337 12-15-21	394 13-16-22	450 14-17-24	506 15-18-25
	 B	CFM/Side Throw (ft)	168 253 9-11-15 12-15-20	225 338 10-12-17 9-11-15	281 422 11-14-19 16-19-26	337 506 12-15-21 17-22-29	394 591 13-16-22 18-22-31	450 675 14-17-24 19-24-33	506 758 15-18-25 22-25-35
	 A	CFM/Side Throw (ft)	337 14-17-24	450 16-19-28	562 18-22-32	675 19-23-34	787 22-25-36	900 22-26-39	1013 24-29-41
 A	CFM/Side Throw (ft)	675 17-22-30	900 20-24-34	1125 23-28-39	1350 24-30-41	1575 26-32-44	1800 29-35-47	2025 31-37-50	

Throw values for terminal velocities of  
150 fpm, 100 fpm and 50 fpm

Neck Velocity (fpm)  
Velocity Pressure (inches of water)  
Total Pressure (inches of water)  
NC Values based on 10 db room attenuation

## TABLE 2 - PERFORMANCE CORRECTIONS SQUARE-TO-ROUND NECK

Square Inlet	Round Inlet	NC (add)	TP (multiply)	Throw (Multiply)		
				150	100	50
9" x 9"	6"	17	3.50	1.15	1.15	1.20
9" x 9"	8"	4	1.40	1.10	1.10	1.10
12" x 12"	8"	17	3.50	1.15	1.15	1.20
12" x 12"	10"	7	1.65	1.10	1.10	1.15
15" x 15"	10"	17	3.50	1.15	1.15	1.20
15" x 15"	12"	9	1.90	1.10	1.10	1.15
15" x 15"	14"	3	1.25	1.05	1.05	1.10
18" x 18"	12"	17	3.50	1.15	1.15	1.20
18" x 18"	14"	10	2.00	1.10	1.10	1.15
18" x 18"	16"	5	1.45	1.10	1.10	1.10

## PERFORMANCE CORRECTIONS FOR RETURN AIR APPLICATIONS

**Negative Static Pressure**      Add 10% to Total Pressure listed for supply.

**Noise Criteria**                      Add 1 to NC.