

**Application**

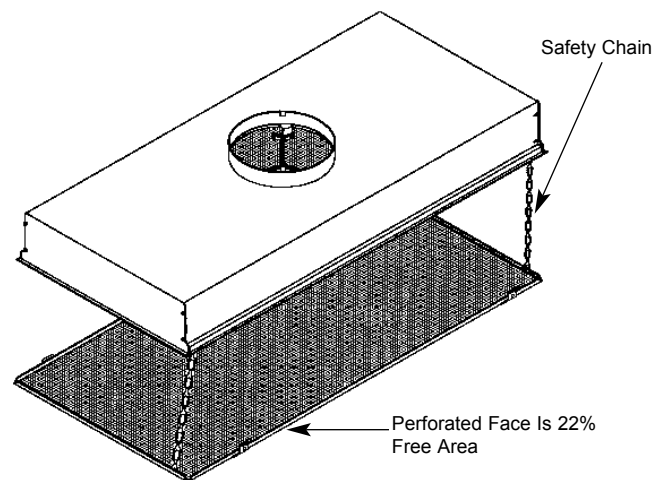
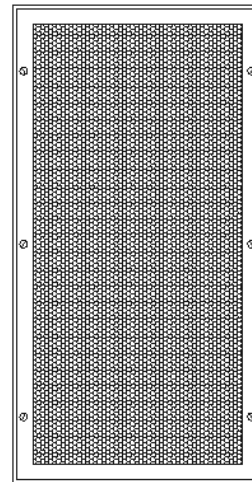
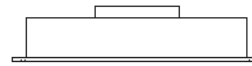
Laminar Flow diffusers are used to deliver air to surface directly underneath in a non-aspirating air pattern, with the minimum possible room air entrainment. This minimizes the particulate contamination on the surface being “washed”. Common applications include operating rooms, laboratories and clean rooms.

**Standard Features**

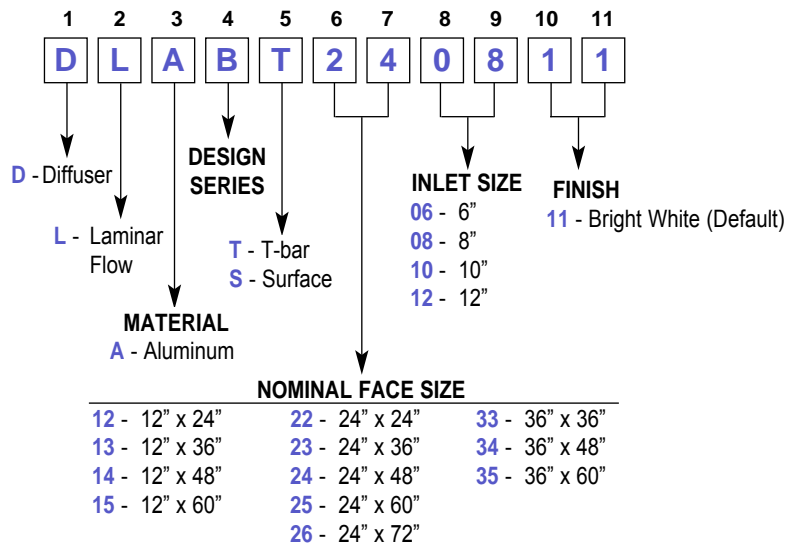
- Features aluminum plenum and face with extruded aluminum frames.
- One model works as T-bar or surface mount.
- Fits 15/16” and 9/16” flat surface T-bar as standard.
- Perforated face is 13.5% free area round hole pattern.
- Face assembly is attached with 1/2 turn fasteners and is removable for cleaning.
- Stainless steel safety cable is standard.
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 bright white.
- Collar is special leak-proof construction to eliminate contamination in ceiling plenum.
- Integrated seismic tabs on each corner are standard.
- Balancing is done via flat blade screwdriver, by removing face and inserting blade into damper operator.
- Available in a wide range of face sizes as standard.
  - 12” x 24” 12” x 36” 12” x 48” 12” x 60”
  - 24” x 24” 24” x 36” 24” x 48” 24” x 60”
  - 24” x 72” 36” x 36” 36” x 48” 36” x 60”

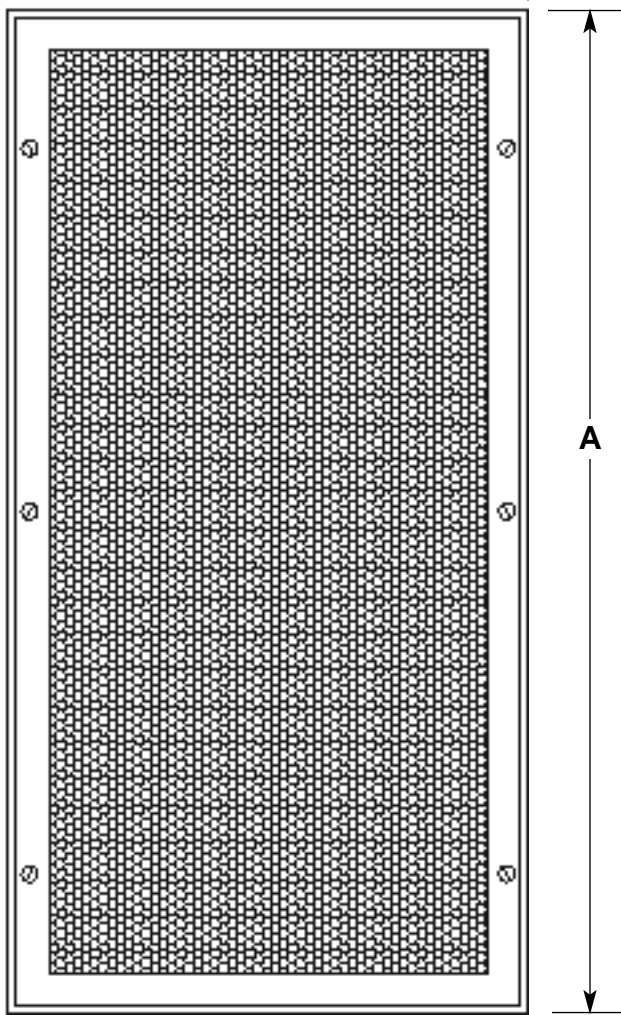
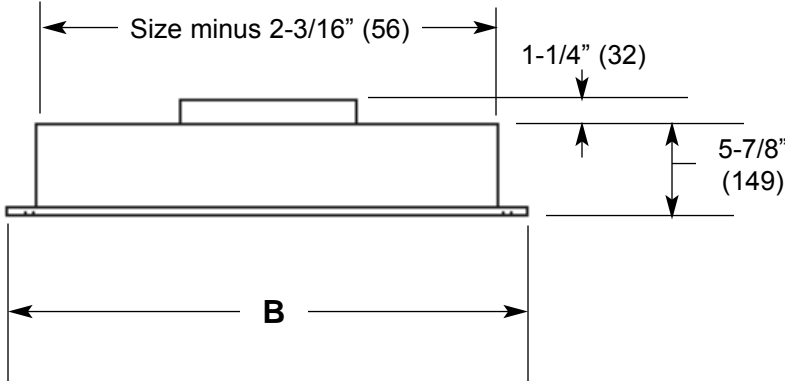
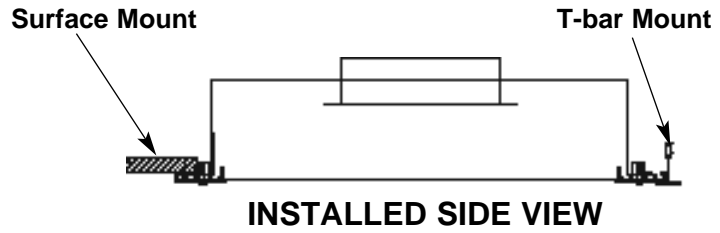
**Recommended Accessories**

- Recommended balancing damper is model KXMB (p. A429).
- For surface mount applications use auxiliary frame Model KXFA (p. A447).



**Model Numbering System**





Dimensions Listed In Inches (Millimeters)		
Model & Material	Dimension A Listed Sizes	Dimension B Listed Sizes
DLAB Aluminum	minus 1/4" (- 6)	minus 1/4" (- 6)

- NOTES:**
1. Plenum is .040 aluminum. Face and plaster frames are made of extruded aluminum.
  2. Inlet is Size minus 1/8" (3) to fit into duct.
  3. Standard Finish is #11 Bright White electrocoat baked enamel.
  4. Other Finishes are available on request.
  5. Perforated material is .063 aluminum with 3/32" (2) round holes 60° on .250 centers 13.5% free area.
  6. Same diffuser can be used for T-bar Lay-In or surface mount.
  7. Optional adjustable damper available.
  8. 1/4 turn fasteners for easy access.
  9. Safety cables included for easy cleaning.
  10. Integrated seismic tabs for secure installation.

**12" x 24" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.015	0.028	0.044	0.063	0.086	0.112	0.140
	NC	--	--	10	13	15	19	22
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9

**12" x 36" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.015	0.026	0.042	0.059	0.081	0.106	0.132
	NC	--	--	--	12	15	18	21
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.017	0.035	0.056	0.085	0.118	0.158	0.202
	NC	--	--	12	16	20	24	29
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12

**12" x 48" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.014	0.025	0.040	0.057	0.078	0.102	0.127
	NC	--	--	--	12	14	17	20
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.016	0.033	0.053	0.081	0.112	0.149	0.192
	NC	--	--	11	15	19	23	27
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12

**12" x 60" Face**

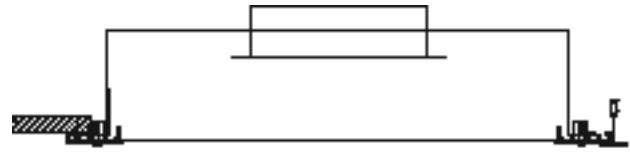
Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.014	0.025	0.040	0.057	0.078	0.102	0.127
	NC	--	--	--	12	14	17	20
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.016	0.031	0.051	0.077	0.107	0.142	0.183
	NC	--	--	10	15	18	22	26
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12

**Notes on Performance Data.**

1. Performance data is based on tests conducted according to ANSI/ASHRAE Standard 70-1991. Actual performance in the field may vary.
2. Testing was conducted in isothermal conditions. Performance is the same under 5° ΔT cooling conditions.
3. NC levels are based on a room absorption of 10dB re 10<sup>-12</sup> watts.
4. Throw values are given for terminal velocities of 150, 100 and 50 fpm, respectively.
5. A "--" indicates an NC level less than 10.

**Units of Measure Used.**

- Air flow is given in cubic feet per minute (cfm).
- Pressure is given in inches of water (w.g.)
- Velocity is given in feet per minute (fpm).
- Sound levels are given in NC (Noise Criteria).



**24" x 24" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.014	0.025	0.040	0.057	0.078	0.102	0.127
	NC	--	--	--	12	14	17	20
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.016	0.033	0.053	0.081	0.112	0.149	0.192
	NC	--	--	11	15	19	23	27
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12
10	Air Flow, CFM	165	220	275	330	385	440	495
	Total Pressure	0.025	0.044	0.070	0.101	0.138	0.179	0.229
	NC	--	11	14	18	22	25	30
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	6 8 12	9 12 17

**24" x 36" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.014	0.025	0.040	0.057	0.078	0.102	0.127
	NC	--	--	--	12	14	17	20
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.015	0.030	0.049	0.074	0.103	0.137	0.176
	NC	--	--	10	14	17	21	25
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12

**Notes on Performance Data.**

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- Pressure is given in inches of water (w.g.)
- Velocity is given in feet per minute (fpm).
- Sound levels are given in NC (Noise Criteria).

**24" x 48" Face**

Nom. Inlet	Air Flow, CFM	60	80	100	120	140	160	180
6	Total Pressure	0.014	0.025	0.040	0.057	0.078	0.102	0.127
	NC	--	--	--	12	14	17	20
	Vertical Projections	1 1 2	1 1 3	2 2 4	2 3 6	3 4 7	4 5 8	4 6 9
8	Air Flow, CFM	100	140	180	220	260	300	340
	Total Pressure	0.015	0.030	0.049	0.074	0.103	0.137	0.176
	NC	--	--	10	14	17	21	25
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12
10	Air Flow, CFM	165	220	275	330	385	440	495
	Total Pressure	0.023	0.040	0.061	0.089	0.120	0.159	0.202
	NC	--	--	12	16	19	23	26
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	8 8 12	8 10 14
12	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.030	0.053	0.083	0.119	0.162	0.211	0.266
	NC	--	12	17	21	25	30	34
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 11	6 9 14	8 10 16	9 12 17

**24" x 60" Face**

Nom. Inlet	Air Flow, CFM	100	140	180	220	260	300	340
6	Total Pressure	0.015	0.030	0.049	0.074	0.103	0.137	0.176
	NC	--	--	10	14	17	21	25
	Vertical Projections	1 1 2	1 2 4	3 4 6	3 4 8	4 6 9	5 7 11	6 8 12
8	Air Flow, CFM	165	220	275	330	385	440	495
	Total Pressure	0.022	0.038	0.059	0.086	0.115	0.153	0.194
	NC	--	--	12	15	18	22	25
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	8 8 12	8 10 14
10	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.028	0.050	0.078	0.111	0.156	0.207	0.259
	NC	--	12	16	20	24	29	33
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 12	6 9 14	8 10 16	9 12 17

**Notes on Performance Data.**

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- Throw values are given for terminal velocities of 150, 100 and 50 fpm, respectively.
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**Units of Measure Used.**

- Air flow is given in cubic feet per minute (cfm).
- Pressure is given in inches of water (w.g.)
- Velocity is given in feet per minute (fpm).
- Sound levels are given in NC (Noise Criteria).



**24" x 72" Face**

Nom. Inlet	Air Flow, CFM	165	220	275	330	385	440	495
10	Total Pressure	0.022	0.038	0.059	0.086	0.115	0.153	0.194
	NC	--	--	12	15	18	22	25
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	8 8 12	8 10 14
12	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.027	0.048	0.076	0.108	0.151	0.201	0.251
	NC	--	11	15	20	24	28	32
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 12	6 9 14	8 10 16	9 12 17

**36" x 36" Face**

Nom. Inlet	Air Flow, CFM	165	220	275	330	385	440	495
10	Total Pressure	0.022	0.038	0.059	0.086	0.115	0.153	0.194
	NC	--	--	12	15	18	22	25
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	8 8 12	8 10 14
12	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.027	0.051	0.081	0.114	0.160	0.213	0.266
	NC	--	12	16	21	25	29	34
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 12	6 9 14	8 10 16	9 12 17

**36" x 48" Face**

Nom. Inlet	Air Flow, CFM	165	220	275	330	385	440	495
10	Total Pressure	0.022	0.038	0.059	0.086	0.115	0.153	0.194
	NC	--	--	12	15	18	22	25
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	8 8 12	8 10 14
12	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.027	0.048	0.076	0.108	0.151	0.201	0.251
	NC	--	11	15	19	23	27	31
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 12	6 9 14	8 10 16	9 12 17

**36" x 72" Face**

Nom. Inlet	Air Flow, CFM	165	220	275	330	385	440	495
10	Total Pressure	0.022	0.038	0.059	0.086	0.115	0.153	0.194
	NC	--	--	12	15	18	22	25
	Vertical Projections	1 1 3	2 2 6	3 4 8	4 6 10	5 7 11	6 8 12	8 10 14
12	Air Flow, CFM	230	310	390	470	550	630	710
	Total Pressure	0.026	0.047	0.074	0.105	0.147	0.195	0.244
	NC	--	11	15	19	23	27	31
	Vertical Projections	2 2 5	3 4 7	4 6 10	5 7 12	6 9 14	8 10 16	9 12 17

**Notes on Performance Data.**

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