

**Diffusers - ETL - Intertek Tested**
**Type: Supply / Return Ceiling Diffuser**
**Throw: Four way**
**Model :SAD-AB-14; RAD-AB-14**
**Construction: Aluminium**
**B-10 Series**

**Description**

Diffuser frame and core are made of high quality extruded aluminium profiles and discharges air equally in four ways as per blade arrangement.

Diffuser core is fixed to the frame using aluminium pins, which are removable to provide access for damper adjustment. The opposed blade damper is rigidly fixed to the frame by spring clips and is screw operated from the face opening of the diffuser. Nylon bushes are installed between blade and frame for rattle free operation.

**Standard Construction**
**Frame**

Extruded aluminium profile with 33 mm flange width.

**Core**

Die punched single piece sheet.

**Damper**

Opposed Blade Damper with extruded aluminium frame and blade operated with screw.

**Bushes**

Nylon.

**Finish**

Available with RAL powder coating, please specify color.

**Optional Fittings**
**Plenum Chamber**

Plenum is available with circular, square or rectangular spigots in either top or side entry applications.

**Neck Reducer (R)**

Neck reducers are available with circular, square or rectangular spigots in top entry only.

**Foam Gasket**

Provided all around the frame, to prevent leakage of air.

**Damper Finish**

Black matte.

**Finish**

Mill finish or Chrome plating.

**Frame and Core**

Available in Stainless Steel (304/316L).

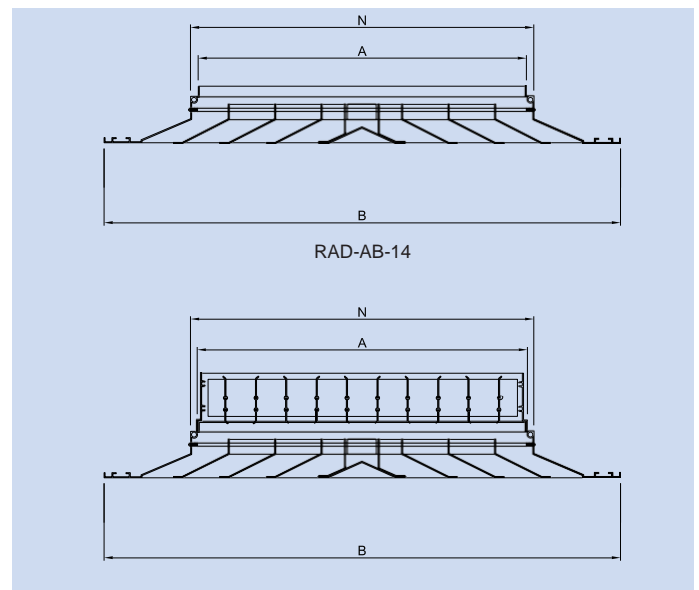
**Note:**

Available in rectangular sizes & are suitable for flush mounting in lay-in type ceiling.

SAD - Supply Air Diffuser (with Damper) & RAD - Return Air Diffuser (without Damper)



SAD-AB-14

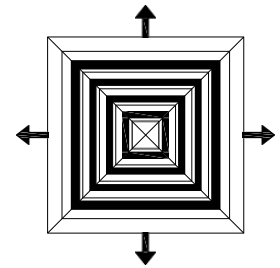


RAD-AB-14

SAD-AB-14-D

| Standard Sizes of Square type Models |     |               |     |               |     |
|--------------------------------------|-----|---------------|-----|---------------|-----|
| N = Nominal Size                     |     | A = Neck Size |     | B = Face size |     |
| L x W                                |     | L x W         |     | L x W         |     |
| 150                                  | 150 | 145           | 145 | 295           | 295 |
| 225                                  | 225 | 220           | 220 | 370           | 370 |
| 300                                  | 300 | 295           | 295 | 445           | 445 |
| 375                                  | 375 | 370           | 370 | 520           | 520 |
| 450                                  | 450 | 445           | 445 | 595           | 595 |
| 525                                  | 525 | 520           | 520 | 670           | 670 |
| 600                                  | 600 | 595           | 595 | 745           | 745 |

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**Diffusers - ETL - Intertek Tested  
Engineering and Performance Data**
**Type: Supply, Return, Ceiling Diffuser**
**Throw : Four way**
**Model: SAD-AB-14; RAD-AB-14**
**Construction: Aluminium**
**B-10 Series**


| SAD/RAD-AB-14 (4 way Diffuser) |                  |                     |         |         |          |          |          |          |          |          |          |          |
|--------------------------------|------------------|---------------------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| Neck Size (inches)             | Area Factor (Ak) | Neck Velocity (FPM) | 250     | 350     | 450      | 550      | 650      | 750      | 850      | 950      | 1050     | 1150     |
| 6 x 6                          | 0.017            | Flow                | 63      | 88      | 113      | 138      | 163      | 188      | 213      | 238      | 263      | 288      |
|                                |                  | NC                  | <15     | <15     | <15      | 19       | 24       | 28       | 32       | 35       | 38       | 40       |
|                                |                  | Throw               | 7,4,2   | 12,7,4  | 15,10,6  | 18,11,7  | 20,13,8  | 22,14,9  | 24,15,9  | 25,16,10 | 26,17,11 | 28,18,11 |
|                                |                  | Ps                  | 0.014   | 0.028   | 0.046    | 0.069    | 0.097    | 0.129    | 0.166    | 0.207    | 0.253    | 0.303    |
| 9 x 9                          | 0.028            | Flow                | 141     | 197     | 253      | 309      | 366      | 422      | 478      | 534      | 591      | 647      |
|                                |                  | NC                  | <15     | <15     | 20       | 26       | 31       | 35       | 39       | 42       | 45       | 47       |
|                                |                  | Throw               | 10,6,3  | 14,9,5  | 16,11,6  | 19,12,7  | 20,14,8  | 22,15,9  | 24,16,10 | 25,16,10 | 26,17,11 | 27,18,11 |
|                                |                  | Ps                  | 0.021   | 0.042   | 0.069    | 0.103    | 0.144    | 0.191    | 0.246    | 0.307    | 0.375    | 0.45     |
| 12 x 12                        | 0.045            | Flow                | 250     | 350     | 450      | 550      | 650      | 750      | 850      | 950      | 1050     | 1150     |
|                                |                  | NC                  | <15     | 19      | 27       | 33       | 38       | 43       | 46       | 50       | >50      | >50      |
|                                |                  | Throw               | 13,8,4  | 16,11,6 | 18,12,7  | 20,14,8  | 21,15,9  | 23,16,10 | 24,17,11 | 25,17,11 | 26,18,12 | 26,19,12 |
|                                |                  | Ps                  | 0.027   | 0.053   | 0.087    | 0.13     | 0.181    | 0.241    | 0.31     | 0.387    | 0.473    | 0.567    |
| 15 x 15                        | 0.061            | Flow                | 391     | 547     | 703      | 859      | 1016     | 1172     | 1328     | 1484     | 1641     | 1797     |
|                                |                  | NC                  | <15     | 23      | 32       | 39       | 44       | 49       | >50      | >50      | >50      | >50      |
|                                |                  | Throw               | 15,10,5 | 18,13,7 | 19,14,8  | 21,15,9  | 22,17,10 | 24,17,11 | 24,18,12 | 25,18,12 | 26,19,13 | 26,20,13 |
|                                |                  | Ps                  | 0.027   | 0.052   | 0.086    | 0.129    | 0.18     | 0.24     | 0.308    | 0.385    | 0.47     | 0.564    |
| 18 x 18                        | 0.075            | Flow                | 502     | 702     | 903      | 1104     | 1305     | 1505     | 1706     | 1907     | 2107     | 2308     |
|                                |                  | NC                  | <15     | 23      | 32       | 40       | 46       | >50      | >50      | >50      | >50      | >50      |
|                                |                  | Throw               | 16,11,6 | 18,13,8 | 20,15,9  | 21,16,10 | 23,18,11 | 24,18,11 | 25,19,12 | 25,20,12 | 26,21,13 | 27,21,13 |
|                                |                  | Ps                  | 0.021   | 0.041   | 0.067    | 0.101    | 0.141    | 0.187    | 0.241    | 0.3      | 0.367    | 0.44     |
| 21 x 21                        | 0.088            | Flow                | 582     | 812     | 1042     | 1272     | 1502     | 1732     | 1962     | 2192     | 2422     | 2652     |
|                                |                  | NC                  | <15     | 23      | 33       | 42       | 46       | >50      | >50      | >50      | >50      | >50      |
|                                |                  | Throw               | 17,12,7 | 18,12,7 | 20,14,9  | 22,16,10 | 23,18,11 | 24,19,11 | 25,19,12 | 25,20,13 | 26,21,14 | 28,22,14 |
|                                |                  | Ps                  | 0.022   | 0.042   | 0.068    | 0.102    | 0.141    | 0.183    | 0.241    | 0.3      | 0.47     | 0.44     |
| 24 x 24                        | 0.1              | Flow                | 634     | 914     | 1194     | 1474     | 1754     | 2034     | 2314     | 2594     | 2874     | 3154     |
|                                |                  | NC                  | <15     | 24      | 34       | 41       | 48       | >50      | >50      | >50      | >50      | >50      |
|                                |                  | Throw               | 18,12,8 | 18,14,9 | 20,16,10 | 21,17,10 | 23,18,11 | 24,19,12 | 25,19,13 | 26,21,14 | 26,22,14 | 29,23,15 |
|                                |                  | Ps                  | 0.021   | 0.04    | 0.066    | 0.103    | 0.142    | 0.187    | 0.241    | 0.33     | 0.367    | 0.5      |

**Note:**

1. Airflow is measured in cubic feet / minute (CFM).
2. Static Pressure (Ps) is measured in inch water guage (in.w.g).
3. Noise criteria (NC) is measured in decibals (dB).
4. Neck velocity is measured in feet/minute (fpm).

5. Throw is measured in feet (ft).
6. Area factor (Ak) is measured in square meter (m<sup>2</sup>).

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