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**CURVED BLADE DIFFUSER**  
**CBD1**



## **CURVED BLADE DIFFUSER – ONE WAY BLOW** **CBD1**

### **PRODUCT DESCRIPTION AND APPLICATION**

Airfoil's Australian Made Curved Blade Diffuser 1 Way Blow (CBD1) is perfect for ceiling applications requiring precise control over supply air direction for heating and cooling distribution. This aluminium diffuser offers the advantage of individual curved blades that can be easily adjusted to control airflow, allowing for targeted air movement in designated areas.

The CBD1 is typically mounted flush to a ceiling or can be installed into a fixed T-Bar grid application. With an outer frame size of 32mm and adjustable blades fixed at 20mm centres, this diffuser provides flexibility in airflow management.

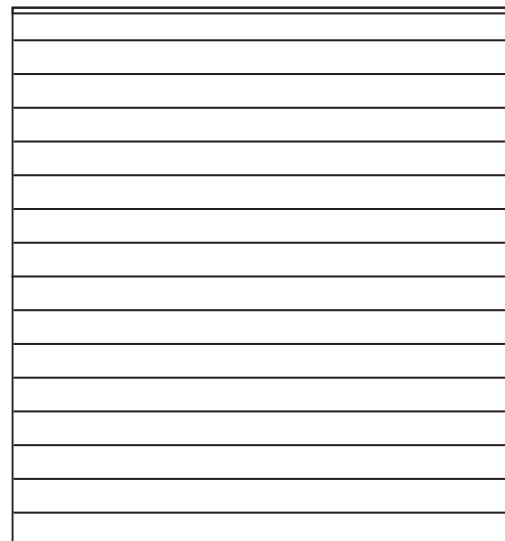
The curved adjustable blades are securely attached to the outer frame using high-quality spring-loaded metal wires, tightened with metal star washers. Optional extras for this diffuser include Airfoil's Opposed Blade Damper (OBD) for air balancing, Airfoil's Fixing Clip Reducer Neck (FCRN), or Airfoil's Insulated Cushion Box (ICB) for commercial supply air installations.

This popular and visually appealing diffuser can be manufactured to any size and is available in our standard white range or Natural Anodised silver finish. Additionally, the diffuser can be powder-coated to any specific colour to suit aesthetic preferences. The CBD1 is well-suited for various applications, including airports, hospitals, office spaces, shopping centres, universities, or any commercial building where precise directional air control is essential.

## CURVED BLADE DIFFUSER – ONE WAY BLOW CBD1

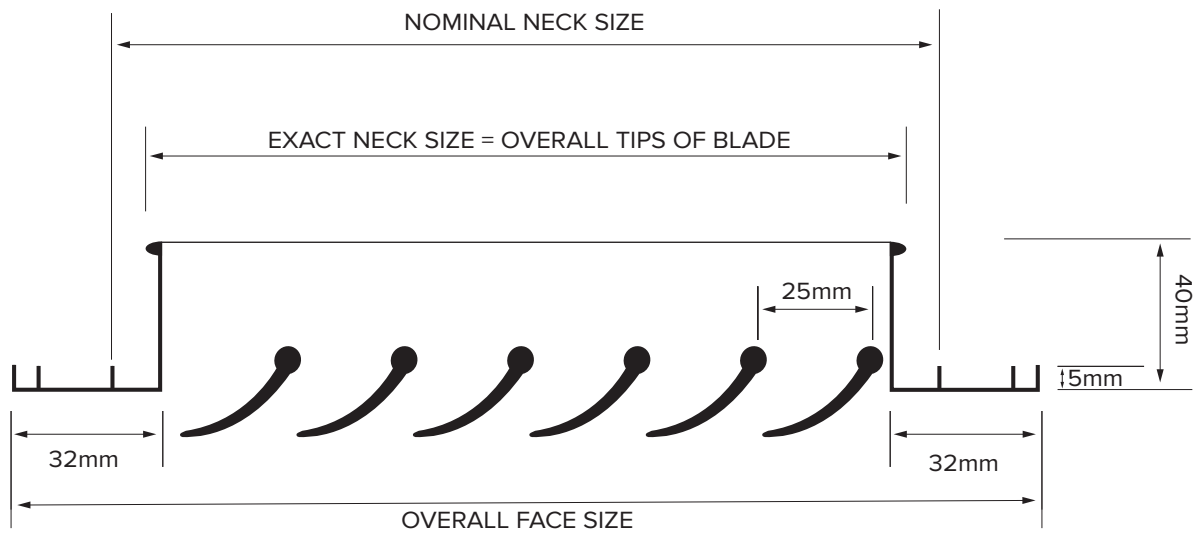
### PRODUCT SPECIFICATIONS AND INFORMATION

- **Product ordering code – CBD1**
- Australian Made
- Aluminium construction
- 1 Way Blow - Curved Blade Supply Air pattern
- Frame size 32mm, blade centred at 20mm
- Overall frame depth 40mm
- Supply air directional control
- Available in any custom size
- Suited to surface mounted applications (plasterboard ceiling) or T-Bar ceiling patterns
- Suited to heating and cooling outcomes
- Available in standard white or Natural Anodised silver finish
- Special powder-coated colours available on request
- Available with Airfoil's Fixing Clip Square to Round Reducer Neck (FCRN)
- Available with Airfoil's Insulated Cushion Box (ICB) to suit CBD
- Available with Airfoil's optional Opposed Blade Damper (OBD) for air balancing
- Product suitable for airports, hospitals, office spaces, shopping centres, hotels, colleges, universities and most commercial or industrial buildings
- Airfoil tested information available
- **The following metric performance data has been derived from exhaustive testing in elaborate laboratories of acoustic and vibrational engineers Louis A. Challis and Associates Proprietary Limited. Darling Street, Sydney 2000**



## CURVED BLADE DIFFUSER – ONE WAY BLOW CBD1

### CROSS SECTIONAL DIAGRAM



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## CURVED BLADE DIFFUSER – ONE WAY BLOW CBD1

### PERFORMANCE DATA

Face Velocity	1 m/s			1.5 m/s			2 m/s			2.5 m/s		
Neck Size	l/s	Throw m	Stat Pres (Pa)	l/s	Throw m	Stat Pres (Pa)	l/s	Throw m	Stat Pres (Pa)	l/s	Throw m	Stat Pres (Pa)
<b>300x300</b>	60	.9	.75	85	1.5	1.5	115	2.1	2.5	135	3	3.75
<b>400x400</b>	105	1.5	1	150	2.1	1.75	205	3.0	2.5	245	4	3.75
<b>450x300</b>	90	1.2	1	135	1.8	1.75	165	2.7	2.5	210	3.7	3.75
<b>450x450</b>	140	1.5	1	200	2.7	1.75	260	3.7	2.5	320	4.6	3.75
<b>600x300</b>	120	1.5	1	175	2.1	1.75	230	3.4	2.5	290	4.3	3.75
<b>600x450</b>	185	2.1	1	275	3.0	1.75	360	4.3	2.5	450	4	3.75
<b>600x600</b>	250	2.4	1	380	3.7	1.75	510	5.2	2.5	610	6.7	3.75

Throw measurements are at 1.5mls min and .65mls max terminal velocity.

Face Velocity	3 m/s			3.5 m/s			4 m/s		
Neck Size	l/s	Throw m	Stat Pres (Pa)	l/s	Throw m	Stat Pres (Pa)	l/s	Throw m	Stat Pres (Pa)
<b>300x300</b>	160	3.4	5	180	4	6.25	215	4.6	7.5
<b>400x400</b>	300	4.9	5	340	5.8	6.25	400	6.7	7.5
<b>450x300</b>	250	4.3	5	290	5.5	6.25	340	6.1	10
<b>450x450</b>	390	5.5	5	440	6.7	6.25	520	7.6	10
<b>600x300</b>	340	5.2	5	350	6.1	6.25	450	7	10
<b>600x450</b>	550	6.7	5	640	7.9	6.25	730	8.5	10
<b>600x600</b>	750	7.6	5	850	9.1	6.25	1000	10.3	10

Throw measurements are at 1.5mls min and .65mls max terminal velocity.