

# AIRFOIL

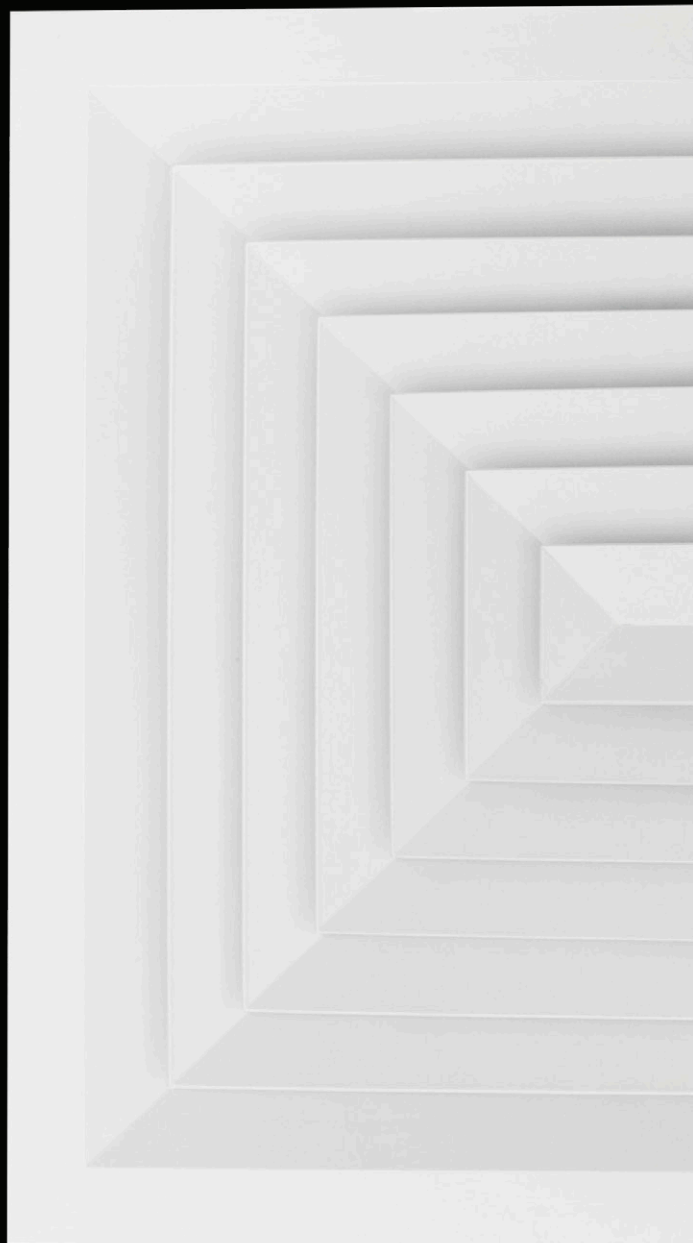


GRILLES  
DUCT  
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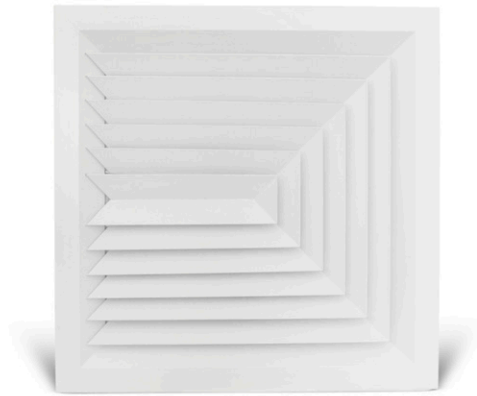
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**LOUVRE FACE DIFFUSER  
LFD31**



## LOUVRE FACE DIFFUSER – THREE WAY BLOW LFD31

### PRODUCT DESCRIPTION AND APPLICATION

Airfoil's premium Louvre Face Diffuser 3 Way Blow (LFD31) offers a sophisticated multi-core supply air pattern. Designed for surface mounting, this diffuser is typically installed flush with the ceiling line.

Its versatile frame style is well-suited for lay-in applications, seamlessly integrating into metric exposed T-Bar ceiling grids without modification. Additionally, it can be effortlessly laid into modular ceiling tiles without altering the T-Bar construction. The Louvred Diffuser cone pattern ensures uniform airflow distribution, making it suitable for both heating and cooling purposes.

Extruded from Airfoil's finest aluminium, the diffuser features a quick-release core for easy access and installation. Available in 7 different sizes, each diffuser size can be accompanied by a separate T-Bar Frame (TBF), simplifying the installation process. The diffuser is simply laid into the accompanying T-Bar Frame (TBF) for installation into a traditional plasterboard ceiling.

This popular and visually appealing diffuser is available in our standard white range but can also be powder-coated to any specific colour. The LFD31 is ideal for various applications including airports, hospitals, office spaces, shopping centres, schools, or any building where uniform air distribution is essential.

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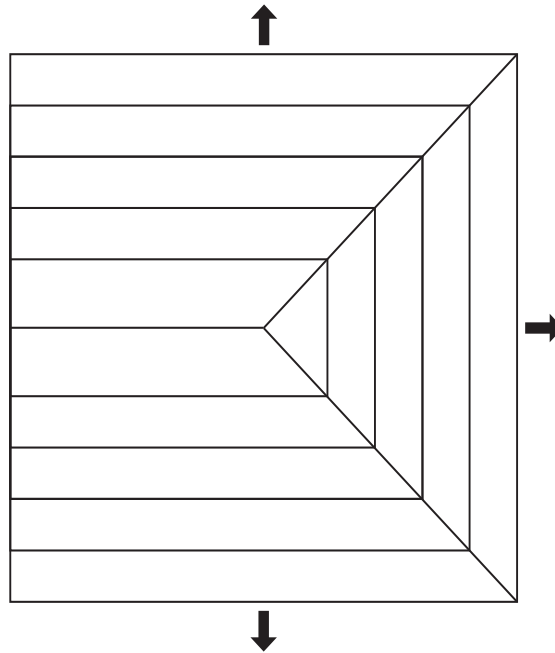
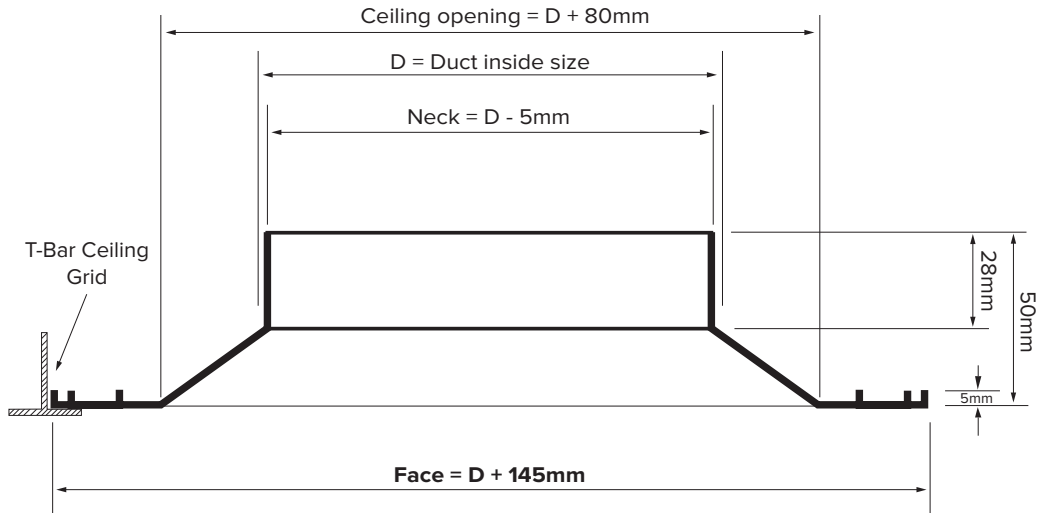
### PRODUCT SPECIFICATIONS AND INFORMATION

- **Product ordering code – LFD31**
- Aluminium construction
- Multi-Core 3 Way Blow supply air pattern
- Face Sizes available: 595mm x 595mm Face Size, 395mm x 395mm Face Size,
- Neck Sizes available: 450mm x 450mm Neck Size, 375mm x 375mm Neck Size, 300mm x 300mm Neck Size, 225mm x 225mm Neck Size, 150mm x 150mm Neck Size
- Suited to ceiling grid and flush mounted applications
- Quick release removable core for access and installation
- Suited to heating and cooling outcomes
- Available in standard white
- In stock
- Special powder-coated colours available on request
- Available with accompanying Airfoil T-Bar Frame (TBF) for plaster board ceiling applications
- Product suitable for airports, hospitals, office spaces, shopping centres, hotels, colleges, universities and most commercial or industrial buildings
- Available with Airfoil's Fixing Clip Square to Round Reducer Neck (FCRN), Square to Round Reducer Neck (RN) and Square to Square Reducer Neck (RN)
- Available with Airfoil Cushion Box (ICB) to suit LFD
- 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**



## LOUVRE FACE DIFFUSER – THREE WAY BLOW LFD31

### CROSS SECTIONAL DIAGRAM



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## LOUVRE FACE DIFFUSER – THREE WAY BLOW LFD31

### PERFORMANCE DATA

Neck Area	Rating	1.5	2.0	2.5	3.0	3.5
(sq. metre)	Total Pressure Drop in Pascals	10	15	23	33	44
150x150	l/s	34	45	56	67	78
	NR - dB	—	—	—	22	29
0.0225	NC - dB	—	—	—	21	28
	Min - Max Throw (metres)	1.2-3.4	1.5-3.7	2.1-4.0	2.7-4.6	3.0-5.2
225x225	l/s	76	101	127	152	177
	NR - dB	—	—	22	27	33
0.0506	NC - dB	—	—	21	26	32
	Min - Max Throw (metres)	1.8-5.2	2.4-5.5	3.4-6.4	4.0-7.0	4.6-7.9
300x300	l/s	135	180	225	270	315
	NR - dB	—	21	25	30	36
0.0900	NC - dB	—	20	24	29	35
	Min - Max Throw (metres)	2.4-6.7	3.4-7.9	4.3-8.5	5.5-9.1	6.1-10.0
375x375	l/s	210	260	345	421	490
	NR - dB	17	23	27	33	39
0.1406	NC - dB	16	22	26	32	38
	Min - Max Throw (metres)	3.0-7.0	3.7-10.0	5.5-10.7	6.1-11.0	8.0-13.0
450x450	l/s	304	405	506	607	708
	NR - dB	—	24	29	34	41
0.2025	NC - dB	—	23	28	33	40
	Min - Max Throw (metres)	3.4-7.0	4.0-10.3	5.8-11.0	6.4-11.3	8.2-13.4

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

## LOUVRE FACE DIFFUSER – THREE WAY BLOW LFD31

### ORDERING CODES

<b>LFD41/F 595x595</b>	4 way blow diffuser 595mm x 595mm LAY IN FACE SIZE
<b>LFD31/F 595x595</b>	3 way blow diffuser 595mm x 595mm LAY IN FACE SIZE
<b>LFD25/F 595x595</b>	2 way corner blow diffuser 595mm x 595mm LAY IN FACE SIZE
<b>LFD21/F 595x595</b>	2 way opposite blow diffuser 595mm x 595mm LAY IN FACE SIZE
<b>LFD11/F 595x595</b>	1 way blow diffuser 595mm x 595mm LAY IN FACE SIZE
<b>LFD41/F 395x395</b>	4 way blow diffuser 395mm x 395mm LAY IN FACE SIZE
<b>LFD31/F 395x395</b>	3 way blow diffuser 395mm x 395mm LAY IN FACE SIZE
<b>LFD25/F 395x395</b>	2 way corner blow diffuser 395mm x 395mm LAY IN FACE SIZE
<b>LFD21/F 395x395</b>	2 way opposite blow diffuser 395mm x 395mm LAY IN FACE SIZE
<b>LFD11/F 395x395</b>	1 way blow diffuser 395mm x 395mm LAY IN FACE SIZE
<b>LFD41 375x375</b>	4 way blow diffuser 375mm x 375mm NECK SIZE
<b>LFD31 375x375</b>	3 way blow diffuser 375mm x 375mm NECK SIZE
<b>LFD25 375x375</b>	2 way corner blow diffuser 375mm x 375mm NECK SIZE
<b>LFD21 375x375</b>	2 way opposite blow diffuser 375mm x 375mm NECK SIZE
<b>LFD11 375x375</b>	1 way blow diffuser 375mm x 375mm NECK SIZE
<b>LFD41 300x300</b>	4 way blow diffuser 300mm x 300mm NECK SIZE
<b>LFD31 300x300</b>	3 way blow diffuser 300mm x 300mm NECK SIZE
<b>LFD25 300x300</b>	2 way corner blow diffuser 300mm x 300mm NECK SIZE
<b>LFD21 300x300</b>	2 way opposite blow diffuser 300mm x 300mm NECK SIZE
<b>LFD11 300x300</b>	1 way blow diffuser 300mm x 300mm NECK SIZE
<b>LFD41 225x225</b>	4 way blow diffuser 225mm x 225mm NECK SIZE
<b>LFD31 225x225</b>	3 way blow diffuser 225mm x 225mm NECK SIZE
<b>LFD25 225x225</b>	2 way opposite blow diffuser 225mm x 225mm NECK SIZE
<b>LFD21 225x225</b>	2 way opposite blow diffuser 225mm x 225mm NECK SIZE
<b>LFD11 225x225</b>	1 way blow diffuser 225mm x 225mm NECK SIZE
<b>LFD41 150x150</b>	4 way blow diffuser 150mm x 150mm NECK SIZE
<b>LFD31 150x150</b>	3 way blow diffuser 150mm x 150mm NECK SIZE
<b>LFD25 150x150</b>	2 way corner blow diffuser 150mm x 150mm NECK SIZE
<b>LFD21 150x150</b>	2 way opposite blow diffuser 150mm x 150mm NECK SIZE
<b>LFD11 150x150</b>	1 way blow diffuser 150mm x 150mm NECK SIZE