# **N** martini

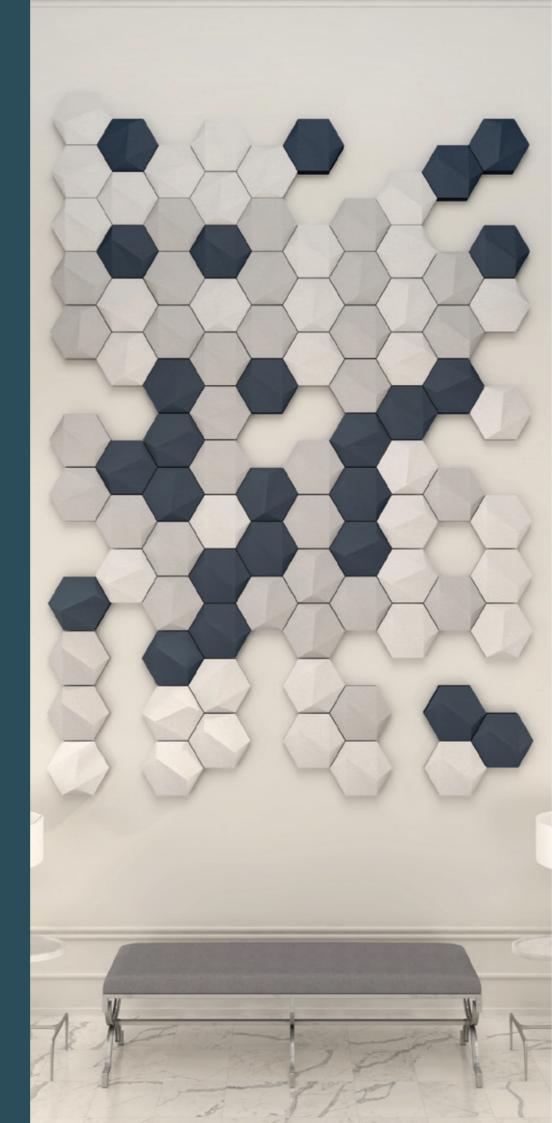
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# dECO Blades

With Verto<sup>™</sup> Suspension System

CSR

# Where science and sound, meet design



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Verto

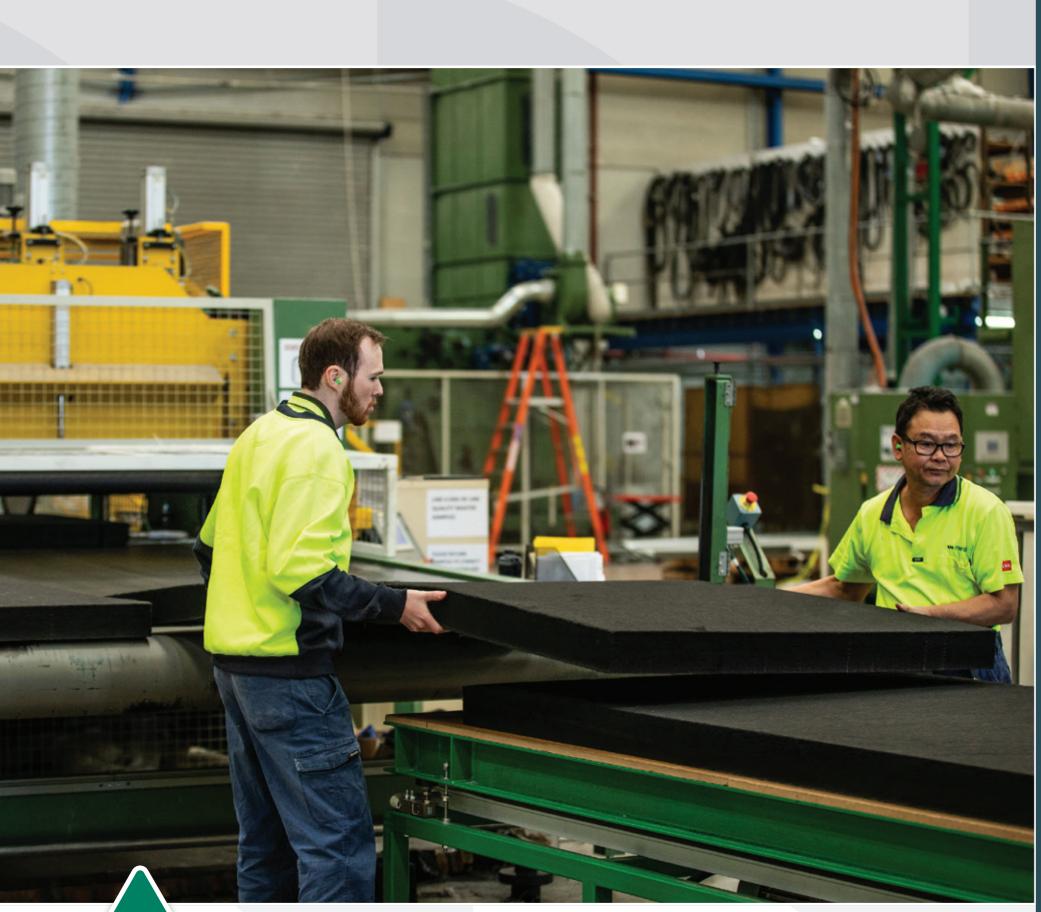
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Cover Page features direct fixed dECO Blades in Wedge Design.

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# About CSR Martini

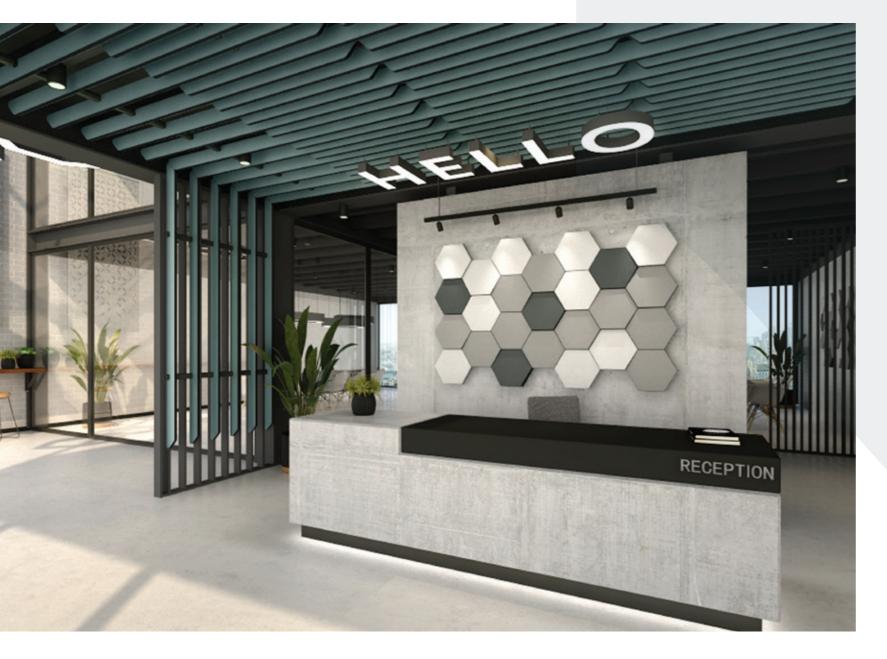
Proudly Australian owned and manufactured with over
26 years of experience behind us, our acoustic products
have been specifically engineered to perform across
multiple environments - and even within different
interior spaces.

Offering non-exposed insulation, semi-exposed absorptive products, and decorative acoustic solutions to be used alone or in combination, we are the experts at integrating design and performance so that your desired outcome is reached both functionally and aesthetically.

Whether it be the offices of the big four banks, lconic Australian landmarks, to the education facilities of our future, our mission and our purpose remains the same: to revolutionise the acoustic decorative and insulation industry, improve daily life by fusing science, sound and design, and becoming pioneers of sustainable building practices.

From our manufacturing processes to the final installation, people and environment continue to sit at the heart of our business. Walking into a space designed by CSR Martini is a transformative experience that cannot be described – only felt and heard. Instantly, the power of sound becomes clear. The beauty of science and aesthetics work in harmony as noise is reduced and the full spectrum of sound amplified.

Refusing to cut corners may seem like a crazy move in a world that is constantly moving faster and becoming more demanding. But this is what sets us at CSR Martini apart. New products are only released when they are truly ready. Custom always means custom – one size will never fit all. And while our innovation may or may not always be seen, it will always be heard.



## Why acoustics matter

#### We believe that sound can impact our environment for better or worse.

Studies show that poor acoustics can reduce student learning, productivity in workplaces, affect hospital recovery periods, as well as detract from our experience in social settings. The effects are wide and far reaching.

Couple this with increased trends towards more collaborative, open-plan spaces, actively managing noise levels are paramount to ensure you get the most out of your surroundings.

At CSR Martini, we engineer environments that transform the collective experience of those within them, reducing the impact of noise where it's not wanted.

**Experience the difference** with our range.

# Performance

Acoustics is a silent science of sound frequencies and movement.

As silent performers, our products are engineered to excel by fibre characteristics, density and varying thickness of our range. We measure internal performance of sound through a measure called the Noise Reduction Coefficient (NRC). The NRC is a simplified number that's the arithmetic average of the sound absorption occurring at four frequencies - 250, 500, 1000 and 2000 Hz. The higher the NRC, the greater the sound absorption at those frequencies.

Investment in extensive acoustic testing offers you the assurance that comes with actual results rather than just opinions. Our products deliver exceptional performance and we have the results to prove it. Our products excel in some of the most challenging acoustic applications including recording studios, concert halls, auditoriums and theatres.

CSR Martini stands both the test of time, as well as the test of sound.



## Environment

At CSR Martini, we believe we all have a role to play in looking after the environment. No doubt you feel the same.

To us, it's not just about creating exceptional quality products. We ensure our manufacturing impact, our footprint and every single touch point from production to final delivery considered.

Why? Because as a responsible corporate citizen, we are committed to leaving our next generation and the world better than we found it.

But actions speak louder than words. We are proud to say we are leading the way by ensuring our products, along with our manufacturing process have been certified to independent environmental and product health assessments.





<b>)</b> ≋	Declare.
	<ul> <li>certified in accordance with ISO 14025</li> <li>Product Health Declaration (PHD) certified</li> <li>Declare certified</li> <li>Suitable for Green Star<sup>™</sup> projects</li> <li>Safe Use Instructions Sheet (SUIS) can be downloaded from csrmartini.com.au</li> </ul>
s,	<ul> <li>CSR Martini is proudly:</li> <li>GreenTag<sup>CertTM</sup> certified</li> <li>Environmental Product Declaration (EPD)</li> </ul>
t, / is ne	<ul> <li>Products manufactured from thermally bonded polyester fibre have a minimum of 60% recycled fibre content from PET packaging such as empty drink bottles</li> <li>The products are 100% recyclable</li> <li>Volatile organic compounds (VOCs) generated in the manufacturing process is classified as low (0.01mg/m<sup>3</sup>)</li> <li>No ozone-depleting gases are used during the manufacturing process</li> <li>No Red List chemicals are present</li> <li>Safe, non-irritant, non-toxic, and non-allergenic</li> </ul>
	<ul> <li>High reusable potential</li> </ul>

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• Products with recycled content reduce

greenhouse gas emissions

# NN Martini VERTO

#### Making sound versatile

Inspired by the word 'Vertebrae', Verto is a unique innovative system, which can either be direct fixed to the ceiling or installed as a suspended feature. It provides a myriad of different executions and suspension effects.

As functional as it is versatile, Verto can be paired with both our dECO Blades and dECO Screens to bring your design vision to life, while offering all the signature acoustic enhancing benefits you can expect from any CSR Martini product.



## Verto<sup>™</sup> System Overview



## Verto<sup>™</sup> Extrusion

An engineered aluminium modular mounting system designed for dECO Blades and dECO screens.



#### Hardware

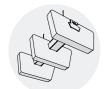
The hardware options available give you the flexibility to fix to a ceiling or a wall providing a range of different executions and interior suspension effects;

- Suspended Grid
- Suspended Soffit
- Direct Fix (Wall or Ceiling)
- Rondo<sup>™</sup> KEY-LOCK<sup>™</sup>



## **Snap Technology**

The exclusive snap blade technology allows for quick and simple installation with the confidence of an instant secure fit.



## **Spacing Versatility**

Providing a concealed bespoke finish, the aluminium snap spacer allows for consistent spacing between blades based on your project needs whist giving you speed for a quick installation.



## **Assembly Support**

Detailed step-by-step illustrations are available in the Installation Guide for each unique hardware execution. CSR Martini also offer technical support if required on all projects.



# System Components









End Caps





**Eclipse Ceiling Ends** 

T-Grid Clips

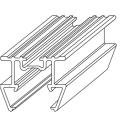
# Verto<sup>™</sup> System Compatible With...



# dECO Blades

harmonised sounds.

# dECO Screens noise within interior spaces.



Aluminium Extrusion



Suspension Wire



**Snap Covers** 



**Concrete Dowel** 

Curated for targeted sound absorption, dECO Blades features a series of modular blades that have been engineered and designed to reflect distinctive

dECO Screens provide a decorative room divider or wall feature that also reduces and control reverberated echo



- (universal connector included to increase length).



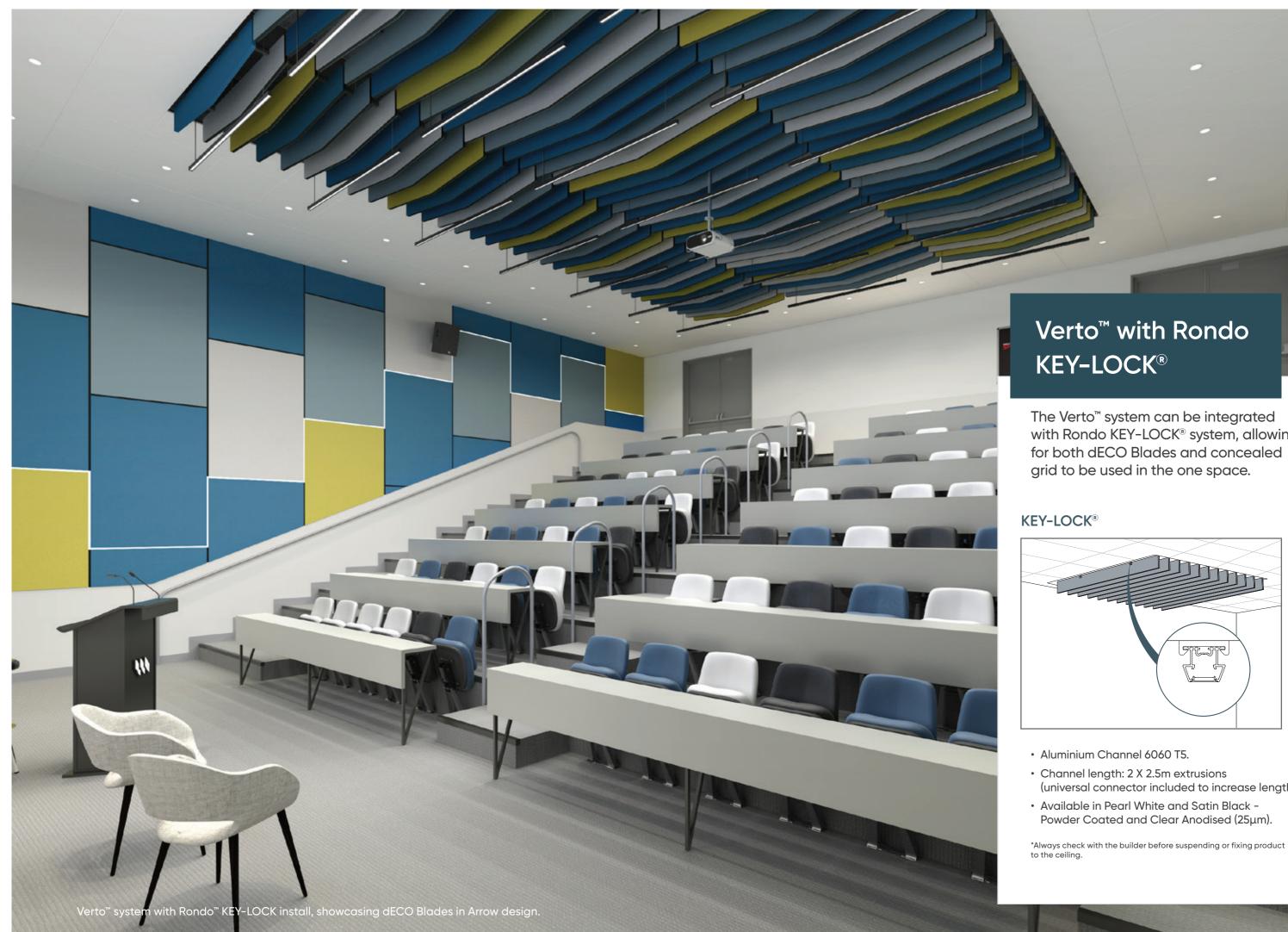


# Integrating Rondo KEY-LOCK® and Verto

At CSR Martini innovation and ease of installation is always top of mind.

Verto has been engineered to integrate directly into the Rondo KEY-LOCK® system. This exclusive installation feature now allows you to directly clip the Rondo 139 joining clip to the Verto extrusion making this a seamless system integration.

This is an ideal solution if you are looking to incorporate an acoustic blade system within a concealed grid system.



with Rondo KEY-LOCK® system, allowing for both dECO Blades and concealed

- (universal connector included to increase length).



#### Physical description and properties

Product Name:	Verto <sup>™</sup>
Patents:	Australia Innovation P International Patents I
Composition:	Aluminium 6060 T5 6060 alloy is one of th It is a heat treatable o and weldability. It is co in residential and com
Channel:	Verto <sup>™</sup> hanging and r
Channel Length:	2.5 metres Also available in 1.2 n
Coatings:	Pearl White and Satin
Cantilever Details:	Hanger Hanger
Seismic Information:	Verto Suspended Acc assessed by David Be applications in accor 2007, AS1664.1-1997 a structural requiremen when installed in acc
Installation:	Refer to Verto <sup>™</sup> Install
Intended Use:	<ul> <li>Verto<sup>™</sup> is suitable fo</li> <li>Appropriate for ceil ceiling to wall comb</li> <li>Compatible for suspor direct fixed to wa</li> <li>Verto<sup>™</sup> can also be</li> <li>Verto<sup>™</sup> is compatible</li> </ul>
Fire Sprinkler Considerations:	Fire sprinkler should b with clauses 5.7.2 to 5
Verto <sup>™</sup> Care and Maintenance:	<ul> <li>To clean your alumin and non-abrasive, p Rinse thoroughly to r</li> <li>For environments clo should occur at a mi</li> <li>For low corrosion are every 12 months</li> <li>Remove all acoustic</li> </ul>

#### atent - 2020103233 Pending

e most common alloys of the 6000 series. alloy with very good corrosion resistance ommonly used in window and door frames amercial applications.

nounting system

netres for dECO Screens

Black – Powder Coated, Clear Anodised (25µm)



Maximum cantilever length is applicable to 2.5 metre rails, ensure there is a cantilever at each end of an equal length.

oustic Blade System has been independently eneke Consulting (DBC) for ceiling rdance with AS/NZS 1170.0-2002, AS1170.4and design tables prepared that satisfy the nts of NCC 2019 Amdt 1 in office environments cordance with the Verto Installation Guide.

I Instructions for installation guidelines

or indoor use only

ling or wall applications or both,

oinations

pension or direct fix to a ceiling structures alls

tension fit for decorative screen applications to use with both dECO Blades and dECO screens

be mounted below the blades in accordance 5.7.8 from AS2118.1-2017

nium, wash down with a solution of warm water oH neutral detergent with a soft damp cloth. remove any residue

assified as high corrosion areas, cleaning

inimum of every 3 months

eas aluminium should be cleaned at least

blades and lighting before cleaning aluminium





## Blades of Harmony

Curated for targeted sound absorption dECO blades features a series of modular blades that have been engineered and designed to reflect distinctive harmonised sounds.



Verto<sup>™</sup>system direct fix install, showcasing dECO Blades in Wedge design.





Blade Height	100mm	200mm	300mm		
Blade Length	Available in 2400mm, 1800mm or 1200mm				
Blade Thickness	24mm dECO Deluxe 27mm dECO Deluxe Screen (includes fabric)				
Acoustic Blades	24	12	8		

#### Allowable cantilever length range

Blade Width	Length (mm)	Blade Separation distance (mm)			
	2400	91	50min	750max	79
Linear 100	1800	91	50min	750max	63
	1200	91	50min	750max	48
	2400	198	50min	750max	87
Linear 200	1800	198	50min	750max	69
	1200	198	50min	750max	52
	2400	326	50min	750max	90
Linear 300	1800	326	50min	750max	71
	1200	326	50min	750max	53

\*Based on the Rondo DUO Grid System, Rondo DONN Grid System, Rondo KEY-LOCK® System, Suspended Soffit (K6 Kunkel), Direct Fix in Steel (0.55 BMT and 0.75 BMT)



# Wedge

**Blade Height** 

**Blade Width** 

**Blade Thickness** 

**Acoustic Blades** 

#### Allowable cantilever length range

Blade Width	Length (mm)	Blade Separation Verto Rail Allowable Range distance (mm) of Cantilever Length, L (mm)*			Jltimate hanger load (N)
	2400	91	50min	750max	79
Wedge 100	1800	91	50min	750max	63
	1200	91	50min	750max	48
Wedge 200	2400	198	50min	750max	87
	1800	198	50min	750max	69
	1200	198	50min	750max	52
	2400	326	50min	750max	90
Wedge 300	1800	326	50min	750max	71
	1200	326	50min	750max	53

\*Based on the Rondo DUO Grid System, Rondo DONN Grid System, Rondo KEY-LOCK® System, Suspended Soffit (K6 Kunkel), Direct Fix in Steel (0.55 BMT and 0.75 BMT)

100mm	200mm	300mm
Available	in 2400mm, 1800mm	or 1200mm
27mm dEC	24mm dECO Deluxe CO Deluxe Screen (incl	udes fabric)
24	12	8





## Arrow

Blade Height	200mm	300mm	
Blade Width	Available in 2400mm, 1800mm or 1200mm		
Blade Thickness	24mm dECO Deluxe 27mm dECO Deluxe Screen (includes fabric)		
Acoustic Blades	12	8	

#### Allowable cantilever length range

Blade Width	Length (mm)	Blade Separation distance (mm)		•	
	2400	198	50min	750max	87
Arrow 200	1800	198	50min	750max	69
	1200	198	50min	750max	52
	2400	326	50min	750max	90
Arrow 300	1800	326	50min	750max	71
	1200	326	50min	750max	53

\*Based on the Rondo DUO Grid System, Rondo DONN Grid System, Rondo KEY-LOCK® System, Suspended Soffit (K6 Kunkel), Direct Fix in Steel (0.55 BMT and 0.75 BMT)

# Movement

Blade Height

**Blade Width** 

**Blade Thickness** 

Acoustic Blades

## Allowable cantilever length range

Blade Width Length (mm)		Blade Separation distance (mm)			
	2400	198	100min	750max	107
Movement	1800	198	50min	750max	84
	1200	198	50min	750max	62

Direct Fix in Steel (0.55 BMT and 0.75 BMT)

245-270mm

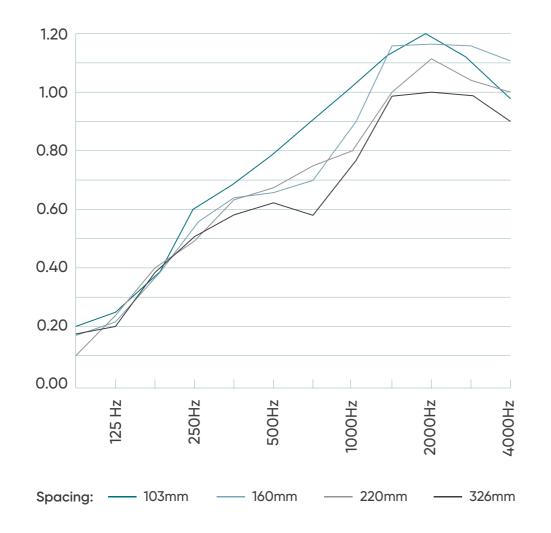
Available in 2400mm, 1800mm or 1200mm

24mm dECO Deluxe 27mm dECO Deluxe Screen (includes fabric)

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# **System Performance**

## **Acoustic Performance**



Sound absorption coefficients according to ISO 354. University of Auckland testing service.

Frequencies	125hz	250hz	500hz	1,000hz	2,000hz	4,000hz	NRC
103mm	0.30	0.60	0.75	1.00	1.00	1.00	0.90
160mm	0.25	0.50	0.70	0.90	1.00	1.00	0.80
220mm	0.25	0.50	0.65	0.85	1.00	1.00	0.75
326mm	0.20	0.45	0.60	0.75	0.95	0.90	0.70

Product tested on Capella Collection, Direct Fixed Harmony 27mm.

## **Structural Certification**

Verto Suspended Acoustic Blade System has been independently certified by David Beneke Consulting (DBC) to show the allowable range of cantilever spans on the Verto rail to relevant sections of the following Australian Standards.

- AS/NZS1170.0-2002 Structural design actions, Part 0: General principles
- AS/NZS1664.1-1997 Aluminium structures, Part 1: Limit state design

Verto rail length is 2.5 metres. If you are using the provided kit connector, there is a maximum of 4 rail assemblies joined together, in a row before a short break is required.

Product	- Design	dECO Acoustic Blade Details					Allowable Range of Cantilever length, L (mm)												
		Length (mm)	<sup>h</sup> Height (mm)	) Area (m2)	Thickness (mm)	Blade Separation distance	Top Fixing Type										- Ultimate		
							Duo		Don		Rondo 139		K6 Kunkel		0.55 BMT		0.75 BMT		- hanger load (N) -
						(mm)	Lmin	Lmax	Lmin	Lmax	Lmin	Lmax	Lmin	Lmax	Lmin	Lmax	Lmin	Lmax	
Linear	Linear 100	2400	100	0.24	24	91	50	750	50	750	50	750	50	750	50	750	50	750	79
		1800	100	0.18	24	91	50	750	50	750	50	750	50	750	50	750	50	750	63
		1200	100	0.12	24	91	50	750	50	750	50	750	50	750	50	750	50	750	48
	ħ.o.	2400	200	0.48	24	198	50	750	50	750	50	750	50	750	50	750	50	750	87
	Linear 200	1800	200	0.36	24	198	50	750	50	750	50	750	50	750	50	750	50	750	69
	^	1200	200	0.24	24	198	50	750	50	750	50	750	50	750	50	750	50	750	52
	Linear 300	2400	300	0.72	24	326	50	750	50	750	50	750	50	750	50	750	50	750	90
		1800	300	0.54	24	326	50	750	50	750	50	750	50	750	50	750	50	750	71
		1200	300	0.36	24	326	50	750	50	750	50	750	50	750	50	750	50	750	53
Medge	Wedge 100	2400	100	0.24	24	91	50	750	50	750	50	750	50	750	50	750	50	750	79
		1800	100	0.18	24	91	50	750	50	750	50	750	50	750	50	750	50	750	63
		1200	100	0.12	24	91	50	750	50	750	50	750	50	750	50	750	50	750	48
	Wedge 200	2400	200	0.48	24	198	50	750	50	750	50	750	50	750	50	750	50	750	87
		1800	200	0.36	24	198	50	750	50	750	50	750	50	750	50	750	50	750	69
		1200	200	0.24	24	198	50	750	50	750	50	750	50	750	50	750	50	750	52
	Wedge 300	2400	300	0.72	24	326	50	750	50	750	50	750	50	750	50	750	50	750	90
		1800	300	0.54	24	326	50	750	50	750	50	750	50	750	50	750	50	750	71
		1200	300	0.36	24	326	50	750	50	750	50	750	50	750	50	750	50	750	53
Arrow	Arrow 200	2400	200	0.48	24	198	50	750	50	750	50	750	50	750	50	750	50	750	87
		1800	200	0.36	24	198	50	750	50	750	50	750	50	750	50	750	50	750	69
		1200	200	0.24	24	198	50	750	50	750	50	750	50	750	50	750	50	750	52
	Arrow 300	2400	300	0.72	24	326	50	750	50	750	50	750	50	750	50	750	50	750	90
		1800	300	0.54	24	326	50	750	50	750	50	750	50	750	50	750	50	750	71
		1200	300	0.36	24	326	50	750	50	750	50	750	50	750	50	750	50	750	53
Move- ment	Move-	2400	257	0.62	24	198	100	750	100	750	100	750	100	750	100	750	100	750	107
		1800	257	0.46	24	198	50	750	50	750	50	750	50	750	50	750	50	750	84
		1200	257	0.31	24	198	50	750	50	750	50	750	50	750	50	750	50	750	62

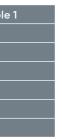
Table 1 - Allowable cantilever length range of Verto 2.0 aluminium rails (ultimate hanger load based on load combination 1.35G)

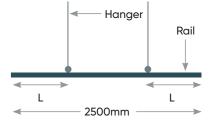
Top Fixing Type	Short form in Tabl				
T-Grid Clip on Rondo DUO	Duo				
T-Grid Clip on Rondo DONN	Don				
Rondo Key-lock 139 Bracket	Rondo 139				
Soffit Anchor K6 Kunkel	K6 Kunkel				
Direct Fix 0.55mm BMT G2 Steel*	0.75 BMT				
Direct Fix 0.75mm BMT G2 Steel*	0.75 BMT				

\* Fastening to light gauge steel to be undertaken using either of the following fasteners: • Class 3 Galvanised Phillips Drive Button Head 8g-18 x 32 mm self-drilling screws from Zenith or Hobson. • Zinc Plated Countersunk Ribbed Head Metal Tek 8g-18 x 30mm self-drilling screws from Buildex.

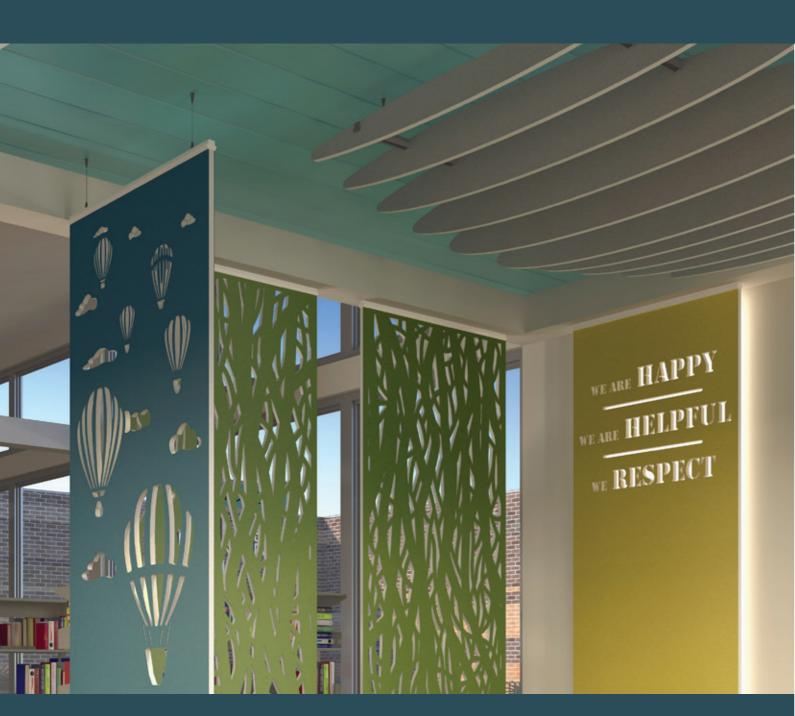
## Seismic Information:

Verto Suspended Acoustic Blade System has been independently assessed by David Beneke Consulting (DBC) for ceiling applications in accordance with AS/NZS 1170.0-2002, AS1170.4-2007, AS1664.1-1997 and design tables prepared that satisfy the structural requirements of NCC 2019 Amdt 1 in office environments when installed in accordance with the Verto Installation Guide.





Maximum cantilever length is applicable to 2.5 metre rails, ensure there is a cantilever at each end of an equal length.



## Make it yours

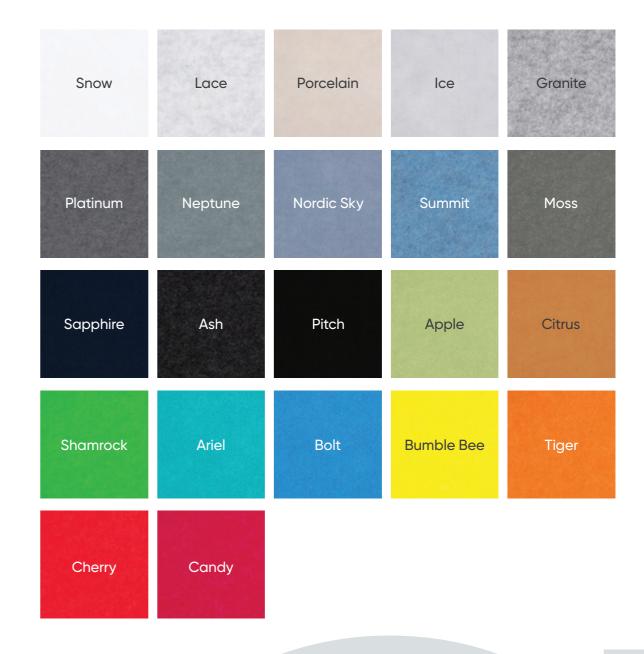
At CSR Martini we believe science, performance and design are equal, we like to redefine environments and challenge the status quo.

Our engineering and design team have the expertise and capacity to customise designs and transform spaces to suit your business, school or special projects. If you are interested in customising deco Blades to enhance your next project contact your account manager or visit www.csrmartini/contact-us

## Colours

The impact colours have on individuals is extraordinary. It can sway thinking, change actions, and cause reactions. It can irritate or soothe your eyes, raise your blood pressure or suppress your appetite.

At CSR Martini we know when colours are used in the right way they can add so much more to the space. Have design freedom with our extensive range of fabric colours and finishes.



further information. For other finishing colour options, consult your CSR Martini representative.

Refer to the dECO Felt Datasheet for further information.



#### Physical description and properties

Product Name:	dECO Blades								
Composition Blade:	100% Polyester Fibre (PET) dECO Deluxe								
Channel:	VERTO™ acoustic blade hanging system								
Blade Width:	2400mm – 1800mm – 1200mm pending design selected								
Blade Depth:	Varied based on design, see individual blade tables in brochure								
Blade Thickness:	24mm dECO Deluxe 27mm dECO Deluxe Screen (includes fabric)								
Overall Height:	100 – 300mm								
Tolerance	+/- 2mm in size or thickness								
Seismic Information:	Verto Suspended Acoustic Blade System has been structurally independently assessed by David Beneke Consulting (DBC) for ceiling applications in accordance with AS/NZS 1170.0-2002, AS1170.4-2007, AS1664.1-1997 and design tables prepared that satisfy the structural requirements of NCC 2019 Amdt 1 in office environments when installed in accordance with the Verto <sup>**</sup> Installation Guide								
Installation*:	Refer to VERTO <sup>™</sup> Install Instructions for installation guidelines. dECO Blades are designed to 'snap' on and off the Verto <sup>™</sup> system. To increase the lifespan of Blades, there is the flexibility to slide the Blades off when removing from the Verto <sup>™</sup> system.								
Intended Use:	dECO Collection is suitable for indoor use only. Suitable for ceiling or wall applications or both, ceiling to wall. Not suitable for outdoor use								
Moisture absorption:	Exposure to an atmosphere of 50°C and 95% RH for four days gives moisture absorption of less than 0.2% by volume								
Acoustic Performance:	The dECO Collection has been designed to reduce and control reverberated (echo) noise within interior spaces								
Fire resistance:	Tested to AS ISO 9705 Corner Burn in accordance with AS 5637.1	<b>Group 1</b> SMOGRA not more than 100m²/s² x 1000							
	The following results were obtained when CSR Martini dECO deluxe was subjected to early fire hazard testing in accordance with Australian Standards AS 1530.3	lgnitability Spread of Flame Heat Evolved Smoke Developed	0 0 0 0-1						

Tested to AS ISO 9705 Corner Burn in accordance with AS 5637.1	<b>Group 1</b> SMOGRA not more than 100m²/s² x 1000	
The following results were obtained when CSR	Ignitability	0
Martini dECO deluxe was subjected to early fire	Spread of Flame	0
hazard testing in accordance with Australian	Heat Evolved	0
Standards AS 1530.3	Smoke Developed	0-1

Decorative Finishes: 24mm dECO Deluxe can be with or without fabric to complement the overall design you are wanting to achieve.

\* Always check with the builder before suspending or fixing product to the ceiling.

dEC	0	Del	luxe
~ L C	$\sim$	20	101/10





## Installation

At CSR Martini we believe that innovation shouldn't only be in the products but also in the method of installation.

Verto<sup>™</sup> has the flexibility to install in many ways ensuring we can meet your project's needs.

- Suspended from a grid ceiling system
- Suspended from soffit
- Direct Fixed either to ceiling or with a ceiling to wall execution

Each Verto<sup>™</sup> kit when ordered comes with its own set of installation instructions based on the fixing you require. With step by step graphics and instructions we know you will find this installation simple and hassle free which will have you wanting to use Verto<sup>™</sup> on all your projects.



# csrmartini.com.au

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