

REF: ACA211112 240703

ENGINEERING EVALUATION CERTIFICATE:

SPIRALWORKS 1300/12, 1500/14, 1800/16, 1900/16, NCC 2022, BCA Volumes One & Two, Class 1,2,3,4&10 buildings.

This certificate is issued by: Acronem Consulting Australia Pty Ltd

This certificate is issued to: Spiralworks Pty Ltd,

54 Frankston Gardens Drive,

Carrum Downs, VIC, 3201, Australia

info@spiralstairs.com.au

This certificate is issued in relation to the proposed building work at: N/A

Nature of proposed building work:

Construction of a *new building/*extension/*alteration Version of BCA applicable to certificate – NCC 2022, BCA Volumes One & Two

Building classification:

Part of building: Internal private stair in a sole-occupancy unit of BCA Classification Class 2, 3 or 4 building.

Part of building: Enclosed stairway or an external stairway of BCA Classification Class 1 or 10 building.

Prescribed class of building work for which this certificate is issued:

Design or part of the design of building work relating to *Structural matter

Documents setting out the design certified by this certificate:

Document:	Date:	Type:	Pages:	Prepared by:
Spiral Staircase - Installation Guide	June 2024	Installation Guide (attached)	16	Spiralworks
Spiralworks Information Fact Sheet 1300/12, Mild Steel Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1300/12, Aluminium Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1500/14, Mild Steel Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1500/14, Aluminium Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1800/16, Mild Steel Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1800/16, Aluminium Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1900/16, Mild Steel Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks
Spiralworks Information Fact Sheet 1900/16, Aluminium Stair	June 2024	Information Fact Sheet (attached)	2	Spiralworks



Performance solution:

This certificate describes the basis of a Performance Solution that must address Performance Requirements & Deemed-to-Satisfy provisions relevant to stairways in buildings.

Performance Requirement(s) & Deemed-to-Satisfy Provision(s)		
B1P1, D1P2, D1P3	 regarding the structural performance; and, safe movement within; and, a fall prevention barrier of; an internal private stair in a sole-occupancy unit of BCA Classification Class 2, 3 or 4 building. 	
H1P1, H5P1, H5P2	 regarding the structural performance; and, movement within; and, a fall prevention barrier of; an enclosed stairway or an external stairway of BCA Classification Class 1 or 10 building. 	

Engineering Report supporting this design:

[details the registered building practitioner uses or relies on in determining that the performance solution complies with the performance requirements —

(i)the assessment method or methods;

Evidence of Suitability, Expert Judgement

(ii)the details of any expert judgement;

- Certificate of Compliance for Proposed Building Work, Spiralworks Mild Steel Stairs 1300/12, 1500/14, 1800/16, 1900/16, 14/06/2024 (certificate valid to 04/06/2026).
- Certificate of Compliance for Proposed Building Work, Spiralworks Aluminium Stairs 1300/12, 1500/14, 1800/16, 1900/16, 14/06/2024 (certificate valid to 04/06/2026).
- Structural Compliance Certificate for Building Design or Specification, Spiralworks 1300/12 Aluminium Spiral Stairs, 1500/14 Aluminium Spiral Stairs, 1800/16 Aluminium Spiral Stairs, 1900/16 Aluminium Spiral Stairs, 14/06/2024 (certificate valid to 04/06/2026).
- Structural Compliance Certificate for Building Design or Specification, Spiralworks 1300/12 Spiral Stairs, 1500/14 Spiral Stairs, 1800/16 Spiral Stairs, 1900/16 Spiral Stairs, 14/06/2024 (certificate valid to 04/06/2026). Note refers to Spiralworks Mild Steel stairs as evidenced by referenced calculations Q18-038 Revision A dated 8-9-21 pages 1to 20.
- Acronem Consulting Australia, July 3, 2024, RE: Spiralworks Aluminium Spiral Stair Systems 1300/12, 1500/14, 1800/16, 1900/16 & Spiralworks Mild Steel Spiral Stair Systems 1300/12, 1500/14, 1800/16, 1900/16.
- CSIRO Appraisals, Technical Assessment 336, Spiralworks, December 2007

(iii)the details of any tests or calculations;

- ATTAR Report 16/10569.1, 15 September 2016, Slip Resistance
- ATTAR Report 16/10569.2, 15 September 2016, Slip Resistance
- CSIRO Report Number 4043s, 29 August 2007, Slip Resistance
- Spiralworks, 13th November 2018 (Galvanising, Bolting, Plastic Extrusions)

(iv)the details of any standards or other information.]

- Documents setting out the design as referenced above and attached.

The design certified by this certificate forms the foundation of a performance solution that, via a performance-based design brief (PBDB), must demonstrate compliance with the National Construction Code.

I certify this design will comply with the NCC requirements specified in this certificate provided it is used, designed, installed and maintained in accordance with the instructions, limitations, conditions and validity requirements of the referenced documentation.

I believe that I hold the required skills, experience and knowledge to issue this certificate and can demonstrate this if requested to do so.

Engineer: Cameron Chick BE(Hons), Ph.D, GC.Com.(Mktg), M.AIRAH, RPEQ

REGISTERED PROFESSIONAL ENGINEER - QLD. (STRUCTURAL): 15370, VIC. (CIVIL): PE0000967

Date of issue of certificate: 03/07/2024

Signature:



ATTACHMENTS:



SPIRAL STAIRCASE - INSTALLATION GUIDE



Big congratulations on choosing to bring a touch of architectural delight into your space with this beautiful spiral staincase from Spiralworks! We're absolutely thrified that you've chosen us to be part of your journey, and we want to express our heartfelt thanks.

At Spiralworks, we're all about crafting things with love and precision. Your new spiral staircase is more than just a functional addition; it's a piece of art that will blend reamiseally within your space. Our talented team put their hearts into creating a staircase that not only meets but exceedly your expectations.

If you have any questions or need a friendly that about your new addition, our cu service team is here for you.

Congratulations once again on bringing the beauty of Spiralworks into your space. May you staircase be a source of joy, connection and elegance in your home.

Cindy Keys

BOLTS LIST

Bolt landing to opening - Nex batten screws 75mm/100mm x 6 of each

Bot top riser to landing - MEx20 4 x washers, 4 x nuts, 4 x bolts. Bot base pixte to floor - MEX/75/200 anchor screws (Spare 6 x landing fixings to be us

Salustrade panel – MSx30 x 4 bolts, 2 x washers, 2 x nuts

Sparse - 5 x tek screws, 5 x widget screws, 5 x grub screws

Top newel post to tread & landing - 2 x M6 buttons (holes pre-drilled)

Riter nutz & wathers to bolt down treads (riter count) - M20 gal nut and washer

Locking up joinem - M20 nuts - 1 per joiner

Double lock starting bottom tread only, refer to image - M20 nuts x 2 (refer to step 4)

Bolt stair handrall to baluster widget - 2 screws per widget 8Gx25 screw PH CSK

Timber tread fixings - SGx16 pan head screws

For Aluminum Stairs only:

reads are numbered for correct placement of the central column.

Spirateorius Physial — Installation Instructions



TOOLS REQUIRED

- > 12" shifter for 30mm nuts
- > Tape Measure
- b Calebianal
- Poly Cutter or repor blade to out polymer handrall
- > Grinder with cutting disc
- Cordless Drill
- > Props or timber supports to hold stair whilst assembling
- > Lifter (Optional) available from Hire Companies Le., Kennards Hire

TOOLS SUPPLIED

- > Allen keys -4mm & 5mm
- > Riserspanner

Step 1:



Before you begin:

Please check the measurement of the floor-to-floor height against the staincase drawing provided to ensure they match.

olts and Flyings are provided for both promote and timber options.

Temporarily install the Landing Platform into position with minimal failings (for safety). These fisings will need to be loosened later to allow connection to the Ton Blass (make See 8).

Note: For safety, if the Landing Platform is not boiled securely, remove it and place on floor carefully until later.







Drop the Plum Line down from the centre of the Top Sizer. Once centre has been pinpointed, bolt to the floor using fulngs supplied.

Note: To connect Top Riser to Platform, If you don't have a plum bob, a (laser) level can be used.

Step 3





Bolt the Centre Base Plate to the ground floor with the bolts provided.

Place the Cover Plate over the Sate Plate.

Spiralworks Physial — Installation Instructions

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Spirateorius Physial — Installation Instructions

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tep 4:



Bolt All-Thread to the bottom Tread (which has three grub screws inserted). Place 2 s MOD Nuts, under Tread and 1 s MOD Nut & Washer above Plate Incide Riser.

Step 5:





Place Tread Assembly over the Sase Plate and pack underneath with some timber or a jack to keep it level – tighten grub screws.

Ca.-- C





Note: FOR ALUMINIUM STAIRS ONLY Treads are numbered from 18 (Bottom Tread) accending towards Top Riser.

Slide next Tread down the All-Thread. Bolt the main Baluster Fost to th

Align by 'eye' with Centre Column for plumbylevel.

Lock the Tread Into position by tightening M20 washer and nut.

Note: Only tighten filters after main Salusters are tight.

Spirateorius Physial — Installation instructions

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Step 7





Repeat step 6 until you are approaching the end of the first place of All-Thread.

After you have tightened the last filter nut, apply an M20 nut and an M20 Thread Joiner to the end of the Ali-Thread, locking them together (Fig. 1).

This allows for another piece of All-Thread to be joined, then tighten the

Note: All-Thread may need to be brimmed to allow space to make the joiner assembly at within the Riser cavity.

"IMPORTAN

Support Central Column (Treads) to stop staircase toppling over. This can be done by using pleor of timber out to size, alternatively use telescopic clamps which are available at tool shops (refr below).





Spirateorius Physial — Installation Instructions

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Step 8:





Continue the previous steps until you reach the Top Riser/ Landing Connection.

Connect Landing to Top Riser.

To make connection, Landing Platform will need to be titled up to allow space for the Top Riser to swivel undermeathalign connection holes, bolt in place using 4 x Mfb30 bolts with nuts and washers.

Sten 9





Attach top Newel Fost to top Tread. Then bolt Newel Fost to the Landing Platform.

Note: Stair may need to be rotated to

Step 10:



All posts need to be level (from top to bottom) including top Newel Post. This ensures your stair is rotated and aligned correctly.

Spiralmonia Physial - bedailedon indractions

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Step 11:





Ensure Newel Fost is plumb, mark holes on ground, fix into place using plugs and/or bugle screws.

Step 12

INSTALLING POLYMER HANDRAIL:

Unroil the Polymer Handrall, working from top down, screw Handrall to the main Balustens (Fig 5) using the BGsG5 screws supplied. Ensure posts remain plumb while fixing Widget.

Widgets are adjustable, once fixed to the handrall, tighten the (pre-installed) Widget screw to lock in position (Fig.4).

iste: if Installing on Aluminium Handroll, please refer to separate instructions





10| ** : *

Step 13:





Fit Blocks to Treads loosely using M6 bolts. Face the grub screws to the rear of the Treads.

Insert remaining Balusters into Blocks and sonew Balusters to Handrall using a Level to least plumb. We suggest installing amoller posts before medium posts.

Do not tighten blocks or grub screw

Step 14:

Using a form Alien Key, tighten all the Blocks from undemests the Treads. Also ensure moin Soluster Fost bolts ore still tight, as they may have loosened during the process.

Next tighten the grub screws in the blocks.

Note: De sure to tighten MG screws prior to the grub screws to ensure Handrall remains level





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Step 15:

INSTALL BALUSTRADE PANELS







Install Balustrade Panels using MB bolts and nuts.

Place the Top Cover Plate (Round Discprovided) with the 'threaded' holes inside the Top Riser and look up with an M20 nut.

Note: no washer it required

Align Balustrade Panel Plate to the 'threaded' holes, then tighten bolts.

Note: If there is left over All-Thread it will work as extra support for the Salustrade Post.

We suggest wrapping the end of the All-Thread with insulation tape, so it doesn't rattle inside the post.

We recommend a maximum of 500mm

Should you not require Salustrade Fanels, you may have a Center Cap to screw on top of the Centre Column with the long MS bolts provided.

Step 16:



Cut Handrall Coll to desired length and install End Cape at both ends.

Spiraheorius Ply USI — Installation Instructions

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OPTIONAL ACCESSORIES

NON-SLIP TREAD MATS:

Apply Tread Mats if they are part of the kit, leaving a border at the front of the Tread of approximately 10mm - keeping the Mat at central as possible.



TIMBER TREADS

Fit Timber Treads to staircase Treads. Use a plastic G damp (so as not to damage Timber Tread) to hold in position while screwing Treads from underneath using screws provided.



CONGRATULATIONS - YOUR STAIR IS COMPLETE!

Spirateurica Physial — Installadion Instruction

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Thank you for purchasing your staircase from Spiralworks. We hope you have many years of enjoyment from your new staircase and would like to recommend the following maintenance suggestions.

MAINTENANCE

Looking after the finished product

Maintain both the setthetic and functional properties of your powder costed finish by regularly deaning the costed currious every six months. This will keep your powder costing looking good for many years to come.

Cleaning is simple

- Remove coams or loose dirt with a soft wet sponge or doth and dry off.
- Wash the powder costed finish with a warm, mild detergent solution using a soft doth, sponge, or brush.

soft doth, sponge, or brush. The careful not demage the coating surface by using hamh materials and deaners such as steal wool, socuring pade, scrapen, strashe liquids or powders. If solvents must be used, mild solvents such as loopropand is recommended. Always test a smill, unseen area of the coating prior to cleaning with solvents.



WARRANTY

We offer an industry standard 7-year structural warranty. This covers metal components only. Other components up to 3 years, will be assessed on a case-by-case basis. The warranty does not cover accidental or deliberate damage to the staincase. For further details visit our wabsits.

TESTIMONIALS

As a small family business, your support is genuinely apprediated. In order to continuously improve and be an industry leader, we would love to hear about your experience with our

Upload your testimonial via our website or find ut on Facebook and Instagram under Spiroheoriz Australia

Spiralworks Physial - tradeleditor instructions

Mires

For 1300 Series, 1500 Series, 1800 Series, 1900 Series Aluminium & Mild Steel - Revised June 2024 V1





54 Frankston Gardens Drive, Camum Downs VIC 3201
Tel: 03 9775 0377 E: sales@spinistalm.com.au









MILD STEEL STAIR

Construction Specifications & Components

Centre Column 114.3 O.D X 4.5mm mild steel pipe.

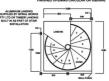
1300 / 12 SPIRAL STAIRS

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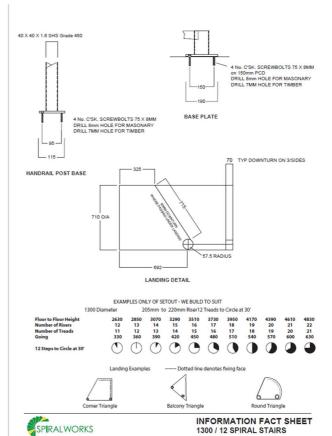
Construction Specifications & Components

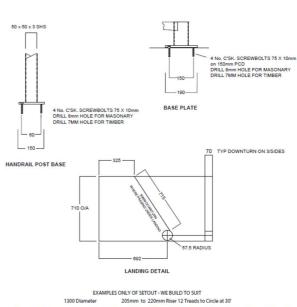
ALUMINIUM STAIR

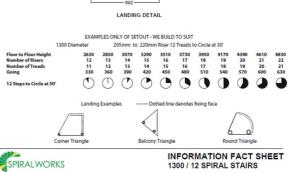
Centre Column 114.3 O.D X 6.35 CHS Grade 6060 - T5 Aluminium.

INFORMATION FACT SHEET

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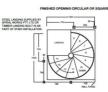












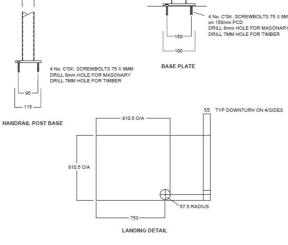




MILD STEEL STAIR

Construction Specifications & Components

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EXAMPLES ONLY OF SETOUT - WE BUILD TO SUIT ter 205mm to 220mm Riser 14 Treads to Circle at 25.7



40 X 40 X 1.6 SHS Grade 450

INFORMATION FACT SHEET 1500 / 14 SPIRAL STAIRS





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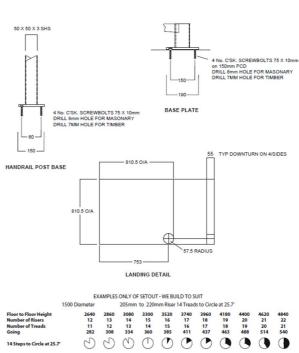


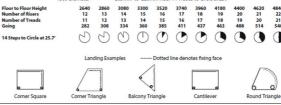
Construction Specifications & Components

Centre Column 114.3 O.D X 6.35 CHS Grade 6060 - T5 Aluminium

INFORMATION FACT SHEET

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INFORMATION FACT SHEET 1500 / 14 SPIRAL STAIRS





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MILD STEEL STAIR

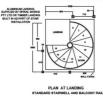
Construction Specifications & Components

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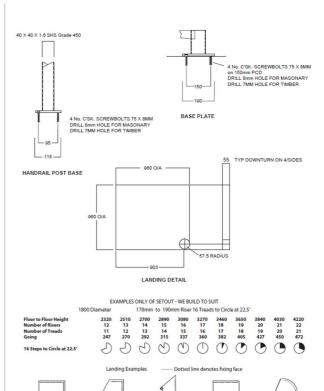


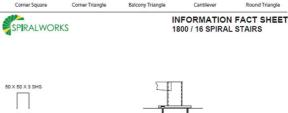


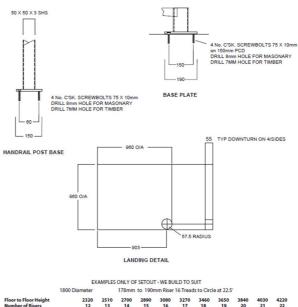
Construction Specifications & Components

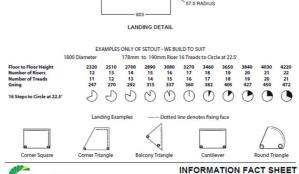
INFORMATION FACT SHEET 1800 / 16 SPIRAL STAIRS

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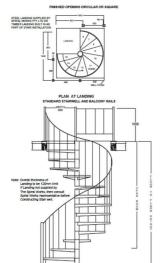




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MILD STEEL STAIR

Construction Specifications & Components



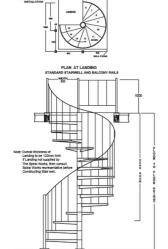
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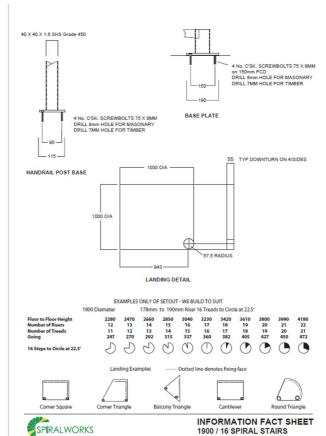


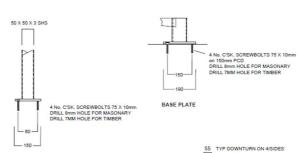
INFORMATION FACT SHEET 1900 / 16 SPIRAL STAIRS

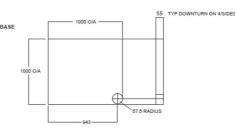
Construction Specifications & Components

narrotan 36 x 5mm roturit, untrotein Pvc. Seasisters 19 x 2mm square tubing with a maximum spacing of 125mm. Handrail posts, top and bottom 50 x 50 x 3m SHS Grade 60054. T5 aluminium. Continuous and uninterrupted handrail is provided on one side of stall a minimum height above the tread nosing of 885mm.

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