



Certificate of Conformity



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Certificate Holder:
Patented Foundations
Pty Ltd
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Certificate number: CM30096 Rev1

THIS TO CERTIFY THAT

KATANA Piles 80kN, 100kN & 150 kN Series

Type and/or use of product:

KATANA Piles 80kN, 100kN & 150 kN Series (Katana piles) transfers building loads beneath residential concrete slab further down from the surface to a subsurface layer or a range of depths. Common reasons for specifying screw piles are very large design loads, a poor soil at shallow depth, or site constraints like property lines. The placement and size of piles is dependent of the engineering design and geotechnical information for each site

Description of product:

Katana piles are steel screw pile with capacities of 80kn, 100 kN and 150 kN utilising a proprietary designed screw thread and cutting comb.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2016

	Volume One –Amendment One	Volume Two	
Performance Requirement(s)		P2.1.1	Structural stability and resistance to actions
		P2.1.2	Construction of buildings in flood hazard areas
		P2.2.3	Dampness
Deemed-to-Satisfy Provision(s):			
State or territory variation(s):		NSW P2.2.3	Dampness
		SA P2.2.3	Dampness

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the certificate holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

The purpose of Global-Mark **construction site audits** is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In placing **the CodeMark mark** on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the **expertise of external bodies** (laboratories, and technical experts).

Herve Michoux
Global-Mark Managing Director

Peter Gardner
Unrestricted Building Certifier

Date of issue: 18/03/2019

Date of expiry: 18/03/2021





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SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

1. Limited to residential construction as outlined within AS2870:2011 'Residential slabs and footings
2. When used in soils that have an exposure classification "Moderate" or "Severe" as defined by AS2159:2009 including amendment 1 and Supplement 1-1996 (R2018), the wall thickness and sealing of the KATANA piles must be in accordance to Katana Screw Pile Corrosion Review on Void Slab System - RLH:VLK:213306 –(8 may 2013)
3. The KATANA piles are not to be used in soils that have an exposure classification "Very severe" as defined by AS2159:2009 including amendment 1 and Supplement 1-1996 (R2018)
4. Not to be used in saturated sands subjected to liquefaction during earthquake loading and sensitive clays that have a rapid decrease in undrained shear strength once peak strength has been reached.
5. Piles filled with concrete are excluded.
6. Only Materials identified in the Katana Product Statement (Version 5) shall be used. Substitutions are not allowed and fall outside the scope of certification.

Building classification/s: 1 and 10a

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Refer to page 1 .

A2 Description of product

Refer to page 1.

Katana Piles are designed in accordance to AS2159:2009 including amendment 1 and Supplement 1-1996 (R2018) to carry 80kN, 100kN or 150kN safe working load along with any additional loads due to installation misalignment, soil movement or pile settlement if applicable

The Katana screw pile consisting of pile shaft and bearing plate made of AS4100-1998 (R2016) compliant steel and are manufactured in accordance to AS/NZS 1554.1:2014 including amendment 1 and 2 to the manufacturing tolerances specified in AS/NZS1163:2016 including amendment 1. The piles are supplied at standard lengths including standard extensions with accessories as specified in the Katana Foundations Detailed Product Statement (Version 5.1 dated 16/10/2018) and Katana Foundations Product Guide (Version 2.0 15/10/2018).

A3 Product specification

The location, diameter, thickness, depth of the piles and on-site rapid test requirements (number of pile and load) is to be specified by a chartered engineer and:

- 1) be based on the site specific geotechnical study be carried out by chartered geotechnical engineer to the depth of piles establishing as a base the minimum;
 - a) Soil type and strength parameters (i.e. undrained shear strength, bearing capacity (cohesive or granular))
 - b) Soil pH levels
 - c) Chloride concentrations (in soil and in groundwater)
 - d) Resistivity
 - e) Permeability of soils
- 2) for the applicable loads defined in accordance to AS/NZS1170 series of standard including (referenced as AS/NZS1170 set):
 - a) All amendments published at the time of issuance of this certificate
 - b) AS1170.4:2007 (R2018) including amendment 1 and 2 .
- 3) in accordance with the following set of documents referenced as the Applicable Technical Documentation:
 - a) AS2159:2009 including amendment 1 and Supplement 1-1996 (R2018) and
 - b) AS 2870 -2011 and
 - c) Katana Foundations Detailed Product Statement (Version 5.1 dated 16/10/2018) and
 - d) Katana Foundations Product Guide (Version 2.0 dated 15/10/2018) and
 - e) Katana Foundations Installation Manual (Version 4 dated 7th of February 2019) and
 - f) Katana Screw Piles- Guidelines for Design Flood Loads (Version 2.0 dated 19/10/2018) and



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g) Either

- i) Basic Helical Screw Pile Design dated 21/02/2005 or
- ii) STA Consulting Engineers - Screw pile calculation Version 3 28/11/2018

A4 Manufacturer and manufacturing plant(s)

Stoddart Manufacturing, 39 Forest Way, Karawatha QLD 4117

A5 Installation requirements

1. Installation and, if required, site testing to be carried out in accordance with Applicable Technical Documentation by a Patented Foundation Pty Ltd approved person
2. When required by the chartered engineer during the product specification, a rapid site test as defined in the Applicable Technical documentation must be undertaken on the number of pile and load defined by the designing engineer to validate and verify the performance achieved by the piles.
3. Installation documentation as required by the Applicable Technical Documentation shall be provided provide to certifying Engineer including a declaration that the KATANA Screw Piles are
 - a) Installed in accordance with the Applicable Technical Specification; and,
 - b) Within the scope, conditions and limitation of this Certificate; and if test as specified in Installation guide and engineering documentation has been undertaken,
 - c) Achieved the performance level expected as demonstrated by the rapid site test.

A6 Other relevant technical data

Any referenced documents within the technical literature identified in Appendix A, A3 and Appendix A, A5.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The following assessment methods have been used to determine compliance with NCC 2016:

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
P2.1.1	1.0.5 (a), (c) & (d)	1.2.2 a(i), a(vi) & b(i) - Test report & other form of documentary evidence & Calculation	Item 1, 2, 3, 4, 5, 6, 7, 8, 9
P2.1.2	1.0.5 (a), (c) & (d)	1.2.2 a(i), a(vi) & b(i) - Test report & other form of documentary evidence & Calculation	Item 2, 3, 5, 7
P2.2.3	1.0.5 (a), (c) & (d)	1.2.2 a(vi) - other form of documentary evidence	Item 2, 3, 5

B2 Reports3

The following reports have been used as evidence to determine compliance with NCC 2016:

Ref	Author	Reference	Date	Description	NATA Registration
1	Donald J Clayton PE	Earth Contact Products LLC.	21-02-2005	Basic Helical Screw Pile Design	
2	E3K	RLH:VLK:213306	8 May 2013	Katana Screw Pile Corrosion Review on Void Slab System	
3	E3K	RLH:VLK:213304	2 April 2013	Screw Pile weld Specification,	
4	Alpha Test Pty Ltd	REF2012579M04	9 October 2012	Mechanical Test Report – Welds, Test Report	14300
5	Katana Foundations		16/10/2018	Katana Foundations Detailed Product Statement (Version 5.1);	
6	Katana Foundations		15/10/2018	Katana Foundations Product Guide (Version 2.0)	
7	Katana Foundations		26/11/2018	Katana Foundations Installation Manual (Version 3.0)	
8	STA Consulting Engineering		19/10/2018	Katana Screw Piles- Guidelines for Design Flood Loads (Version 2.0)	
9	STA Consulting Engineering		28/11/2018	STA Consulting Engineers - Screw pile calculation (Version 3)	
10	Stoddart Manufacturing		Unknown	Screw Pile and Connectors Material Specifications	
11	Alpha Test Pty Ltd	REF20182506M01	17/10/2018	Mechanical Test Report – Welds, Test Report	14300

The Certificate Holder has chosen not to make the above identified evidence of compliance publicly available, due to the documents being considered commercial in confidence.