



Certificate of Conformity



Global-Mark Pty Ltd
Suite 4.07
32 Delhi Rd
North Ryde NSW 2113
Australia

Tel: +61 2 9886 0222

www.Global-Mark.com.au

Certificate Holder:

Patented Foundations
Pty Ltd
37 Gravel Pit Road
Darra QLD 4076

Tel: +61 412 422 578

Certificate number: CM 30096 Rev 5

THIS IS TO CERTIFY THAT

KATANA Piles 80 kN, 100 kN & 150 kN Series

Type and/or use of product:

KATANA Piles 80kN, 100kN & 150 kN Series (KATANA piles) are used in Class 1 & 10 buildings to transfer building loads beneath residential concrete slabs from the surface to a subsurface layer for 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 on the engineering design and geotechnical information for each site

Description of product:

KATANA piles are steel screw piles with capacities of 80kN, 100 kN and 150 kN utilising a proprietary designed screw thread and cutting comb. KATANA piles are available in lengths of 1 to 4 metres, with extension, connector and capping accessories available.

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

BCA 2022

	Volume One	Volume Two including Housing Provisions	
Performance Requirement(s)		H1P1	Structural reliability and resistance
		H1P2	Buildings in flood areas
		H2P3	Rising damp
Deemed-to-Satisfy Provision(s):			
State or territory variation(s):		NSW H2P3	Rising damp

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: 01/03/2025

Date of expiry: 10/11/2025



		SA H2P3	Rising damp
SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B			
Limitations and conditions:		Building classifications:	
General Limited to residential construction as outlined within AS 2870:2011 Residential slabs and footings		1 and 10a	
Volume 2 - H1P1 When used in soils that have an exposure classification "Moderate" or "Severe" as defined by AS 2159:2009 Piling – Design and Installation, including amendment 1, the wall thickness and sealing of the KATANA piles must be in accordance with Katana Screw Pile Corrosion Review on Void Slab System - RLH:VLK:213306 – (8 May 2013).		1 and 10a	
Volume 2 - H1P1 The KATANA piles are not to be used in soils that have an exposure classification "Very severe" as defined by AS 2159:2009 Piling – Design and Installation, including amendment 1.		1 and 10a	
Volume 2 - H1P1 & H2P3 The KATANA piles are 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.		1 and 10a	
Volume 2 - H1P1 Piles filled with concrete are excluded from the scope of this certificate.		1 and 10a	
Volume 2 - H1P1 & H2P3 Katana Piles are designed and should be installed to meet the requirements of AS 2159:2009 Piling - Design and Installation, including amendment 1, with reference to AS/NZS 1554.1:2014 Structural Steel Welding – Part 1 Welding of steel structures, and AS 4100:2020 Steel Structures. Only materials identified in the Katana Foundations Detailed Product Statement (Version 7.0, 17 October 2024) shall be used. Substitutions are not allowed and fall outside the scope of certification.		1 and 10a	
Volume 2 - H1P2 H1P2 does not apply in Queensland. In Queensland, Building work in designated flood hazard areas is regulated by the Building Act 1975 and Development Code 3.5 – Construction of buildings in flood hazard areas. Compliance evaluation to these documents sits outside the scope of the CodeMark scheme rules.		1 and 10a	
Volume 2 - H1P2 H1P2 does not apply in South Australia.		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 with AS 2159:2009 Piling – Design and Installation, including amendment 1, to carry 80 kN, 100 kN or 150 kN safe working loads along with any additional loads due to installation misalignment, soil movement or pile settlement, if applicable.

The KATANA pile consisting of pile shaft and bearing plate made of AS 4100:2020 compliant steel are manufactured in accordance to AS/NZS 1554.1:2014 including amendment 1 and 2 to the manufacturing tolerances specified in AS/NZS 1163:2016 including amendment 1. The piles are supplied at standard lengths including standard extensions with accessories as specified in the Katana Screw Pile Performance Guide (Rev Z, 1 October 2024), KATANA Foundations-Pile Product Guide (CODEMARK – Pile Products only) (v3 15 October 2024) and KATANA Foundations-Attachment Product Guide (CODEMARK – Attachment Products only) (v3 15 October 2024).

A3 Product specification

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

- 1) be based on the site specific geotechnical study 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/NZS 1170 series of standards (referenced as AS/NZS 1170 set) including all amendments published at the time of issuance of this certificate
- 3) in accordance with the following set of documents, referenced as the applicable Technical Documentation:
 - a) AS 2159:2009 Piling – Design and Installation, including amendment 1, and
 - b) AS 2870:2011 Residential slabs and footings, and
 - c) Katana Screw Pile Product Statement: 80kN, 100kN, 150 & 200kN Series (Issue 7, 17 October 2024), and
 - d) KATANA Screw Pile Performance Guide (Revision Z, 1 October 2024), and
 - e) KATANA Foundations-Product Specifications - (CodeMark – Pile Products Only) (Issue 3, 15 October 2024), and
 - f) KATANA Foundations-Product Specifications - (CodeMark – Attachment Products Only) (Issue 3, 15 October 2024)), and
 - g) Katana Screw Piles Guidelines for Design Flood Loads (Version 2.0, 19 October 2018)), and
 - h) Either:
 - i) Basic Helical Screw Pile Design (21 February 2005) or
 - ii) KATANA Screw Pile Capacity Calculation Worksheet (Version 3.0, 28 November 2018)



Certificate of Conformity

A4 Manufacturer and manufacturing plant(s)

Patented Foundations Pty Ltd
37 Gravel Pit Road
Darra QLD 4076

Stoddart Manufacturing
39 Forest Way
Karawatha QLD 4117

A5 Installation requirements

1. Installation to be carried out in accordance with applicable Technical Documentation (refer Appendix B2) by a Patented Foundation Pty Ltd approved person.
2. Site testing:
 - a. A rapid uplift test shall be conducted in accordance with KATANA Screw Pile Performance Guide (Rev Z, 1 October 2024), on a discrete number of piles for each project, unless not suitable due to depth limitations. Rapid uplift tests are used to validate and verify the performance achieved by the piles, and
 - b. When required by the designing engineer, a load test in accordance with AS 2159:2009 Piling – Design and Installation, including amendment 1 must be undertaken on the number of piles and loads 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 to the 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
 - c. achieved the performance level expected as demonstrated by the site test(s).

A6 Other relevant technical data

Any referenced documents within the technical literature identified in Appendices A2, A3, A5 & B2.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The following assessment methods have been used to determine compliance with BCA 2022:

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
BCA Volume 2 H1P1	A2G2 (2) (a), (c) & (d)	A5G3 (1) (e) & (f) – Expert judgement & other form of documentary evidence	Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10
BCA Volume 2 H1P2	A2G2 (2) (a), (c) & (d)	A5G3 (1) (e) & (f) – Expert judgement & other form of documentary evidence	Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10
BCA Volume 2 H2P3	A2G2 (2) (a), (c) & (d)	A5G3 (1) (e) & (f) – Expert judgement & other form of documentary evidence	Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10
BCA Volume 2 NSW H2P3	A2G2 (2) (a), (c) & (d)	A5G3 (1) (e) & (f) – Expert judgement & other form of documentary evidence	Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10
BCA Volume 2 SA H2P3	A2G2 (2) (a), (c) & (d)	A5G3 (1) (e) & (f) – Expert judgement & other form of documentary evidence	Items 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10

B2 Reports

The following reports have been used as evidence to determine compliance with BCA 2022:

Ref	Author	Reference	Date	Description	NATA Registration
1	KATANA Foundations	Katana Screw Pile Performance Guide - Rev Z	1 Oct 2024	Product Technical Statement and Installation Instructions	-
2	KATANA Foundations	Detailed Product Statement - V7.0	17 Oct 2024	Technical design, specification, installation and compliance information for architects, engineers, builders, building surveyors and end-users	-
3*	STA Consulting Engineers	KATANA Foundations-Pile Product Guide (CODEMARK - Pile Products only) Rev 3	15 Oct 2024	Product Technical Statement	-
4*	STA Consulting Engineers	KATANA Foundations-Attachment Product Guide (CODEMARK - Attachment Products only) Rev 3	15 Oct 2024	Product Technical Statement	-
5*	Gilmore Engineers (e3k)	RLH:VLK:213306	8 May 2013	Product Durability Review	-
6*	Gilmore Engineers (e3k)	RLH:VLK:213324	19 Dec 2013	Material Specification	-
7*	KATANA Foundations	KATANA Screw Piles Guidelines for Design Flood Loads - V2.0	19 Oct 2018	Product Engineering Guidelines	-
8*	STA Consulting Engineers	KATANA Screw Pile Capacity Calculation worksheet - V3	28 Nov 2018	Product Capacity Calculation Sheet	-
9*	Stoddart Manufacturing	KATANA Screw Pier and Connectors Material Specifications - Rev B	23 Oct 2018	Material Specification	-
10	Earth Contact Products	Basic Helical Screw Pile Design Guidelines	21 Feb 2005	Product Design Guidelines	-

*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.

End of Certificate