



CSIRO

BUILDING PRODUCTS & SYSTEMS

Appraisals

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TECHNICAL ASSESSMENT 287

StepSure™ Winder System

March 2001^{1,2}

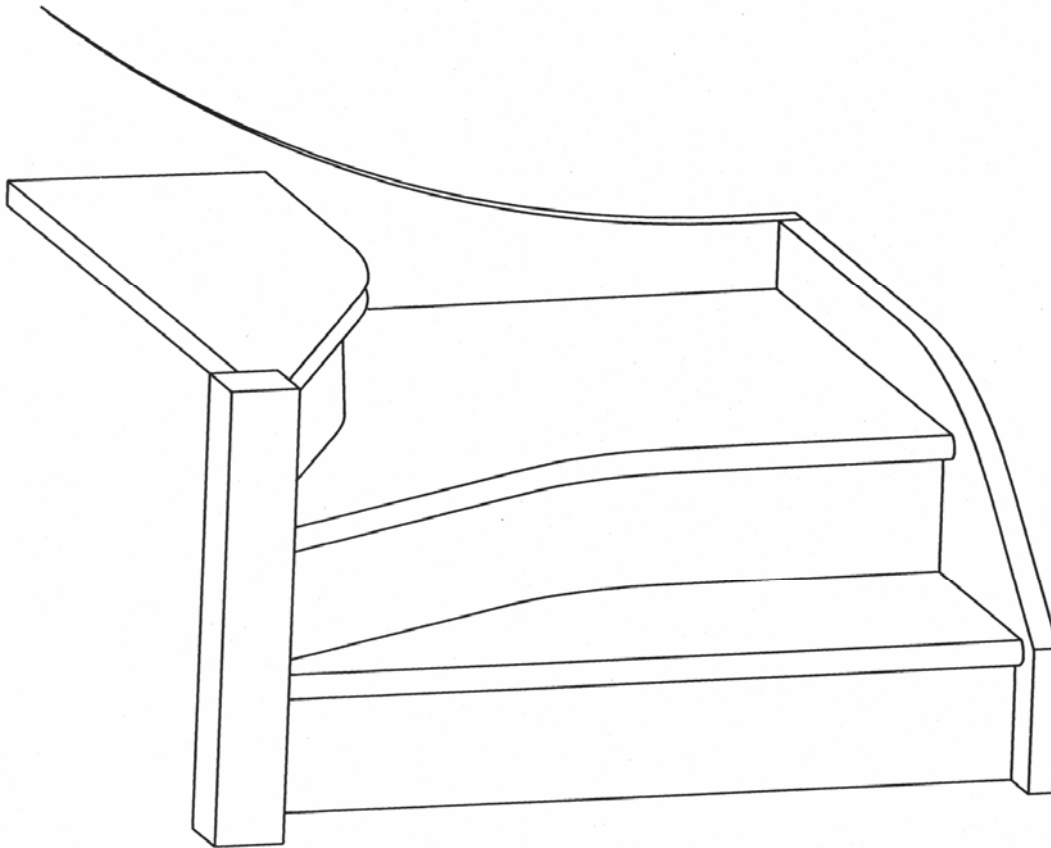
1. March 2004. Revalidation.
2. March 2008. Revalidation.

PURPOSE

Change of direction in a stair flight.

APPLICANT

Slattery & Acquroff Holdings Pty Ltd (ACN 005 146 789),
7 Edgecombe Court, Moorabbin, Victoria 3189.



STEPSURE™

WINDERS

TECHNICAL OPINION

In the opinion of CSIRO Appraisals, the StepSure™ Winder System provides suitable accessibility requirements for change of direction in a stair flight in enclosed stairways in Class 1 or 10 buildings or the internal parts of sole-occupancy units in a Class 2 or Class 3 building or a Class 4 part, under the following conditions:

1. The components are manufactured from HMR medium density fibreboard or solid timber to the specifications provided by the applicant in the Slattery & Acquorff Holdings Pty Ltd, 'StepSure™ Winders', (20 March 2001).

Note: These specifications are available on request from Slattery & Acquorff Holdings Pty Ltd (ACN 005 146 789), 7 Edgecombe Court, Moorabbin, Vic 3189 (Fax 03 9532 0201).

2. Temporary exposure, during construction, is for a period of not more than 90 days. In this circumstance, sanding before finishing may be required.
3. The stairs are not to be used for a fire rated exit.

Note: This assessment is only for the winder part of the staircase. Structural loading and durability have not been included in this assessment.

BUILDING CODE of AUSTRALIA 2007

In the opinion of CSIRO Appraisals, the system described in this Technical Assessment and installed under the conditions listed in this Technical Assessment will satisfy the relevant requirements of clauses DP2 (Volume 1 - Class 2 to Class 9 buildings) so far that it is used only in the internal parts of a sole-occupancy unit in a Class 2 or 3 building or Class 4 part and P2.5.1 'Stairways and ramps' (Volume 2 - Class 1 and Class 10 buildings Housing Provisions) of the Building Code of Australia 2007.

Notes:

- (i) The inclusion of this clause with reference to the BCA is aimed at assisting those involved in the design, specifying and building approval/permit process relate the Appraisal to the relevant Performance Requirements of the BCA.
- (ii) Users of this Technical Assessment need to take into account any changes made to the BCA during the term of validity of this Technical Assessment.

RELATED INFORMATION

VALIDITY OF THE ASSESSMENT

Condition:

This Technical Assessment applies only to the use of the StepSure™ Winder System as described herein.

Withdrawal:

This Technical Assessment will be withdrawn or amended if CSIRO Appraisals considers that a change in design or manufacturing quality renders the basis of appraisal invalid, or if reported field experience convinces CSIRO Appraisals of unsatisfactory quality or performance.

Term of Validity:

This Technical Assessment is valid until 31 December 2009. Technical Assessments may be amended during the term of validity. Users of this Technical Assessment should verify that it remains valid and is the current version by checking on the CSIRO Appraisals website: <http://www.cmit.csiro.au/services/appraisals/>.

RELEVANT DOCUMENTS

Slattery & Acquorff Holdings Pty Ltd, 'StepSure™ Winders', (20 March 2001)

APPROVED ASSESSMENT EXTRACT

The StepSure™ Winder System as manufactured by Slattery & Acquorff Holdings Pty Ltd (ACN 005 146 789), Moorabbin, Victoria provides suitable accessibility requirements for change of direction in a stair flight in internal stairways in Class 1 or 10 buildings or the internal parts of sole-occupancy units in a Class 2 or Class 3 building or a Class 4 part when the conditions listed in CSIRO Appraisals Technical Assessment 287 are fulfilled.

APPRAISAL

DESCRIPTION

The following description is based on information provided by the applicant.

General:

The StepSure™ Winder System consists of pre-machined treads, risers and stringer components constructed from medium density fibreboard or solid timber. The components are joined together with wedges, nails and glue.

The thickness of treads is 32 mm, risers 18 mm and stringers 32 mm.

Quality control checks are carried out at the factory on the finished product for dimensions, and at laboratories associated with the manufacturer of the fibreboard.

Components:

1. **Treads** - These are manufactured in three standard shapes. The nosing edge is rounded and the underside is grooved to accommodate the riser boards.
2. **Risers** - These are cut to pre-determined lengths and a section is saw-kerfed (cut to a designated depth) to allow the riser to bend to the required shape. It is then glued and nailed to the back of the tread below and glued into the groove of the above tread.
3. **Stringers/stringer checkouts** - The stringers have tapered checkouts to a depth of 15 mm to accommodate the tread and wedge. The wedge is glued and driven into the taper to ensure a tight fit between the stringers and treads.
4. **Wedges** - The wedges are a tapered component glued and driven into the checkouts to provide a tight, squeak-free fit between the treads and risers.
5. **Glueblocks** - These are triangular blocks glued to the upper back of the riser and the underside of the above tread to prevent squeaking and ensure strength in the joint between the riser and tread.

DESIGN INFORMATION

General:

Based on information from the applicant StepSure™ Winder System consists of pre-machined moisture resistant, medium density fibreboard or solid timber treads, risers and stringers which interlock together to form a winder in a stair flight.

Design considerations:

Based on information from the applicant StepSure™ Winder System can be used in interior situations where a fire rating is not required.

Durability:

CSIRO Appraisals has not assessed the durability of the StepSure™ Winder System.

The design life of the StepSure™ Winder System has the same life span of any traditional standard staircase component, e.g. the traditional triangular winder treads that the StepSure™ Winder System replaces.

BASIS OF APPRAISAL

CSIRO Appraisals has assessed dimensions of the staircase at the winder section of the stairway in undertaking this appraisal.

The following documents and inspections were used in carrying out the appraisal.

Manufacturer's Information:

1. **Slattery & Acqueroff Holdings Pty Ltd, 7 Edgecombe Court, Moorabbin, VIC 3189.**
'StepSure™':
This document provides product specifications for the winders and plan diagrams for the three shapes manufactured.
2. **Slattery & Acqueroff Holdings Pty Ltd, 7 Edgecombe Court, Moorabbin, VIC 3189.**
'Procedures Manual' (QC_001 (05/0200)):
This manual provides quality control procedures for on site deliver, production and delivery of the stairs.
3. **AWPA Product Certification Scheme. Licence Number 001 (12 April 2011):**
This certificate states that Alpine MDF Industries Pty Ltd has fulfilled the requirements of the AWPA Specific Rules for Product Certification for the production of MR medium density fibreboard and standard medium density fibreboard. The latter is used in production of the StepSure™ Winder System.

Inspection:

Representatives of CSIRO Appraisals have inspected installations of this system and found them to be satisfactory.



K Lofhelme
Manager: CSIRO Appraisals



CSIRO Appraisals is a project of CSIRO Manufacturing and Infrastructure Technology providing a range of assessment products including:

- Technical Assessments – appraisals of innovative products, systems or materials that may or may not be covered by Australian Standards or building regulations.
- Interim Reports – appraisals of products that have not yet reached the fully developed or manufacturing phase. They aid with product development and may be used as a step towards a subsequent Technical Assessment.
- Certification Assessments – appraisals of products, systems or materials solely against the requirements of the BCA and used for gaining approval from Federal or State authorities.

From 1978, under the auspices of the Australian Building Systems Appraisal Council (ABSAC), CSIRO ran an appraisal service in conjunction with the Australian Institute of Building Surveyors, the Housing Industry Association, the Insurance Council of Australia and the Master Builders Association. In 1999, CSIRO Appraisals was formed to continue the business of ABSAC under the sole patronage of CSIRO. This new scheme retains the committee structure of technical and interstate advisers that operated as ABSAC. All past ABSAC publications and appraisals are being continued and supported by CSIRO Appraisals.

CSIRO Appraisals is a founding member of the World Federation of Technical Assessment Organizations.

Technical Assessments are intended to help those concerned with the approval, specification and use of

new products or systems. They are objective assessments of the product, system or material but are not approvals or endorsements. They may be submitted to approval authorities as part of the justification process required to obtain approval.

Each Technical Assessment has been prepared by CSIRO Appraisals and then reviewed, revised and finally endorsed by the Technical Advisory Committee (TAC), detailed below. CSIRO makes the appraisals on a national basis by obtaining input from regional committees in each State and Territory to take account of variations in local building regulations, practice and local climatic features.

CSIRO Appraisals bases its assessment on the product and information it receives and cannot accept responsibility for deviations in the manufactured quality and performance of the material, product or system. However, Technical Assessments will be withdrawn where adequate quality or performance has not been maintained.

This Technical Assessment has been given a term of validity until 31 December 2009. Technical Assessments may be amended during the term of validity. Users of Technical Assessments should verify that Technical Assessments remain valid and are the current version by checking on the CSIRO Appraisals website: <http://www.cmit.csiro.au/services/appraisals/>.

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K Lofhelme

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H. RELATED DOCUMENTS**J. OTHER/OPTIONAL INFORMATION****14. ABSTRACT** *(CSIRO Appraisals Approved Assessment Extract)*

The StepSure™ Winder System as manufactured by Slattery & Acquorff Holdings Pty Ltd (ACN 005 146 789), Moorabbin, Victoria provides suitable accessibility requirements for change of direction in a stair flight in internal stairways in Class 1 or 10 buildings or the internal parts of sole-occupancy units in a Class 2 or Class 3 building or a Class 4 part when the conditions listed in CSIRO Appraisals Technical Assessment 287 are fulfilled.