



The manufacturer **PFEIFER Seil- und Hebetchnik GmbH**
Dr.-Karl-Lenz-Strasse 66
D-87700 Memmingen

hereby declares that the following construction product with the

product designation **PFEIFER VarioSonic SL intermediate staircase bearing**
in the sizes **SL-W, SL-WS, SL-H, SL-HS**

complies with the provisions of the following EC Directive(s), if installed in accordance with the installation instructions as set forth in the product documentation:

- **Decree (EU) No. 305/2011 of the European Parliament and Council dated 09 March 2011 regarding the determination of harmonised conditions for the marketing of construction products and the repeal of the Directive 89/106/EEC**
EC Construction Products Regulation

and that the following standards were applied during dimensioning and construction:

BS EN 1990:2010-12	Eurocode 0: Basis of structural design
BS EN 1990/NA:2010-12 BS EN 1990/NA/A1:2012-08	Eurocode 0: Basis of structural design National annex - nationally determined parameters incl. Amendment A1
BS EN 1992-1:2011-01	Eurocode 2: Design of concrete structures Part 1-1: Common rules for building and civil engineering structures
BS EN 1992-1/NA:2011-01	Eurocode 2: Design of concrete structures Part 1-1: Common rules for building and civil engineering structures National annex – nationally determined parameters
BS EN 1993-1-1:2010-12	Eurocode 3: Design of steel structures Part 1-1: Common rules for building and civil engineering structures
BS EN 1993-1-1/NA:2010-12	Eurocode 3: Design of steel structures Part 1-1: Common rules for building and civil engineering structures National annex – nationally determined parameters
BS EN 1993-1-8:2010-12	Eurocode 3: Design of steel structures Part 1-8: Design of joints
BS EN 1993-1-8/NA:2010-12	Eurocode 3: Design of steel structures Part 1-8: Design of joints National annex – nationally determined parameters
BS EN 1090-1:2012-02	Execution of steel structures and aluminium structures Part 1: Requirements for conformity assessment of structural components
BS EN 1090-1:2011-10	Execution of steel structures and aluminium structures Part 2: Technical requirements for the execution of steel structures
DIN CEN/TS 1992-4-1:2009-08	Design of fastenings for use in concrete Part 4-1: General
ETAG 001/C:2006-11	Guideline for the European Technical Approval for metal anchors for use in concrete, Annex C
DIN 4102-1:1998-05	Fire behaviour of building materials and components Part 1: Building materials; concepts, requirements and tests
DIN 4102-4:1994-03	Fire behaviour of building materials and components Composition and use of classified building materials, components and special components

Performance feature	Service / categorisation / classification
Geometrical tolerances	<i>BS EN 1090-2 (general) DIN 13 (metric ISO thread) DIN ISO 2768 (general)</i>
Welding suitability	<i>No performance specification (no performance determined)</i>
Fracture toughness / resistance to brittle fracture	<i>No performance specification (no performance determined)</i>
Carrying capacity	<i>Design resistance of the vertical support force: Maximum design resistance: $V_{Rd,max} = 33.3 \text{ kN}$ The resistance may be very small, depending on the installation situation (boundary conditions)!</i> <i>The following parameters have a significant influence:</i> <ul style="list-style-type: none"> - Joint width (gap width) between stairs and support - Projection (screw-in depth) of the transversal force bolt - Cracked/uncracked concrete - Edge influence/element edges - Concrete strength class <i>A detailed interaction diagram, which considers and describes the significant influencing parameters, is shown in the current instructions for installation and use of the PFEIFER VarioSonic staircase bearing.</i>
Implementation class	<i>EXC 2 pursuant to EN 1090-2</i>
Fatigue strength	<i>No performance specification (no performance determined)</i>
Deformations in the serviceability limit state	<i>No performance specification (no performance determined)</i>
Fire resistance (Classification pursuant to DIN 4102-4:1994-03)	<i>F 90 (The specifications given in the instructions for the installation and use of the PFEIFER VarioSonic staircase bearing must be observed!)</i>
Fire resistance (Classification pursuant to DIN 4102-1:1998-05)	<i>Transversal force bolt, adjustable foot: Steel component, class A1 Foam box: class B2 Neoprene bearing: class B2</i>
Release of cadmium and its compounds	<i>No performance specification (no performance determined)</i>
Release of radioactive radiation	<i>No performance specification (no performance determined)</i>
Durability	<i>No performance specification (no performance determined)</i>
Manufacture	<i>Acc. to drawing no. Adjustable foot: 0029285 Transversal force bolt: 0018931 Foam box: 0016438</i>
System of conformity certification	<i>2+</i>

Product description / intended use:

PFEIFER VarioSonic SL intermediate staircase bearings are used for the vertical support of stairs and landings made of steel reinforced concrete. Support is usually effected on staircase walls, in which suitable recesses are to be provided.

The intermediate staircase bearings each consist of one transversal force bolt $\varnothing 36$ mm with a special thread, which is screwed into a PFEIFER Rd36 waved anchor or a PFEIFER Rd35 anchor sleeve set into the concrete. A special retention reinforcement is installed for the anchoring of the shear forces with the respective anchor. The height-adjustable foot is screwed into the transverse bore in the bolt. By means of the solid steel support plate the support forces are applied into the support point via an adhered elastomer bearing.

VarioSonic SL staircase bearings are suitable for the absorption and transmission of predominantly static loads.

Certificate acc. to BS EN 1090 regarding the conformity of the factory production control:

Name and address of the notified body: **GSI – Gesellschaft für Schweißtechnik International mbH
Munich branch
Schachenmeierstraße 37
D-80636 München**

Code number of the notified body: 1182

Number of the certificate: 1182-CPD-1090-1.00108.GSIMü.2013.001

Period of validity of the certificate: 13.03.2014

Authorised person responsible for the preparation and maintenance of the technical documentation:

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*PFEIFER Seil- und Hebeteknik GmbH
Memmingen, 30/09/2013*

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