

PRODUCT DECLARATION BY THE CONCRETE ASSOCIATION OF FINLAND TYPE 5B - EC 2 FASTENING ITEM number 111

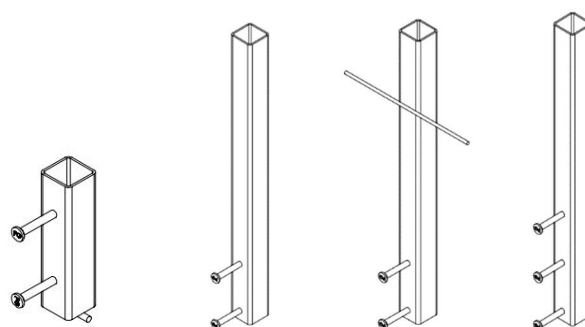
Representative of the fastening item in Finland: **Peikko Finland Oy**
PL 104 (visiting address Voimakatu 3),
15101 LAHTI, Finland

Manufacturer of the fastening item: **Peikko Group Oy**

Type and identification of the fastening item: KAPU® Safety Railing Sleeve

KAPU-202	KAPU-602	KAPU-602+		
KAPU-403	KAPU-503	KAPU-603	KAPU-703	KAPU-803

Figure of the fastening item



Function principle of the fastening item:

KAPU® Safety Railing Sleeves consist of a steel tube and the anchors welded to it. These anchors transfer the loads on the rail to the concrete.

DECISION OF SUOMEN BETONIYHDISTYS R.Y. (THE CONCRETE ASSOCIATION OF FINLAND)

Suomen Betoniyhdistys r.y. has processed this product declaration and has approved it on the basis of the available documentation. The declaration provides sufficient explanation of the properties and matters related to the usage of the fastening item, which is intended for concrete structures, providing that planning is based on Eurocode standards and relevant national amendments.

When the fastening item is used, the product declaration should be taken into account along with the following matters:

1. A valid product declaration for the fastening item, as granted by the Concrete Association of Finland, must be available on the manufacturing site.
2. A product declaration for the fastening item, as granted by the Concrete Association of Finland, must be available on the construction site, along with the product's user manual.
3. Usage areas for the fastening item.

This product declaration is valid until 22.10.2024 in the absence of any information that would represent grounds for the declaration to be withdrawn.

This declaration has been made in two original copies, one of which is stored at the offices of the Concrete Association of Finland.

Helsinki

October 30th, 2019

Suomen Betoniyhdistys ry. (The Concrete Association of Finland)

Matti Pentti
Chair

Tarja Merikallio
Managing Director

The Concrete Association of Finland is an independent technoscientific association that promotes the correct use of concrete. Its members are active in an extensive range of concrete construction areas. The association publishes technical instructions, participates in certifying personal competencies in the concrete sector, organizes training and members' events, initiates and steers development projects, and provides consulting services to the Ministry of the Environment. Applications for product declarations from the Concrete Association of Finland are processed by the Association's divisions, which contain independent experts who are nominated by the Association's board. This product declaration is intended for responsible professionals in the construction sector who are able to appropriately apply the guidance provided in the product declaration on construction sites and who can understand the restrictions related to product usage while taking responsibility for applying them to their own work. Although the Concrete Association of Finland has nominated Finland's best independent experts to the divisions that process product declarations, neither the Concrete Association of Finland nor its members or any personnel involved in preparatory work may be held responsible for the guidelines provided in this product declaration.

1. Operation of the fastening item

KAPU® Safety Railing Sleeves are used for the quick and safe installation of temporary guardrails on load-bearing and non-load-bearing concrete walls. KAPU® Safety Railing Sleeves can also be used to install permanent structural components under a static load.

2. Manufacture of the fastening item

- 21 Components
- Tube

Stud anchors

Rebars
- 22 Manufacturing method
- Tube

Rebars

Mechanical cutting

Mechanical cutting
- 23 Welding
- Arc stud welding (783), SFS-EN ISO 14555

Manual and robot MAG welding (135, 138; SFS-EN ISO 4063), Quality level C (SFS-EN ISO 5817)

3. Dimensions, tolerances, and coating of fastening parts

- 31 Dimensions [mm], weights [kg]
- KAPU® Safety Railing Sleeve dimensions are introduced in the technical manual section 1.3.
- 32 Tolerances
- Dimensional tolerances

Anchor positions

C, SFS-EN ISO 13920

± 5 mm
- 33 Coatings
- KAPU® Safety Railing Sleeves are available uncoated and hot dip galvanized.

4. Material properties of the fastening item (standards, strength values, composition, weldability)

Component	Material	Standard
Tube	S355J2H	SFS-EN 10219-1
Anchor studs	S235J2+C450 (SD1)	SFS-EN ISO 13918
Rebars	B500B	SFS-EN 10080

5. Labeling, packaging method, and storage of the fastening items

Labeling: Products bear a label with information of Inspecta certification mark, Peikko Group emblem, type of the metal component and date of manufacture
 Package: Products are packed on pallets
 Storage: Products are stored indoors

6. Requirements regulating the concrete structures

61 Strength class and special characteristics of concrete and grout
 Concrete strength class must be minimum C20/25. In order to ensure a resilient failure mechanism, the structure must have the edge reinforcement presented in the technical manual.

62 Aggregate quality
 The aggregate quality must be in accordance with SFS-EN 12620 'Aggregates for concrete'.

63 Minimum edge distances and spacing required by the procedure
 Required edge distances and spacing are introduced in the technical manual section 1.2.2 Placement of KAPU® Safety Railing Sleeves.

64 Nominal concrete cover
 The required concrete cover is determined by standard SFS-EN 1992-1-1.

7. Resistances

Resistances of the KAPU® Safety Railing Sleeves are introduced in the technical manual section 2, Resistances.

8. Installation of the fastening item

KAPU® Safety Railing Sleeves are installed in the mold before the concrete is cast. The railing sleeves are either mounted on the element's outer surface or embedded in the element to the tube's depth. Railing Sleeves can also be installed in the insulation space of a sandwich element in which case the stud anchors are anchored to the element's inner shell.

9. Special instructions for ensuring adequate fastening

Precast elements must be manufactured in accordance with relevant standard specific for element type. Installation on site follows SFS-EN 13670 'Execution of concrete structures' and complementary standard SFS 5975, and SFS-EN 1992-1-1 'Design of concrete structures' Annex A and the national annex of Finland. SFS-EN 206 needs to be considered in the concrete performance and production.

10. Structural static calculations (Annex number, calculation name, and date)

Annex 2 KAPU temporary edge protection, Static calculation EN + NA of Finland 3.10.2019

11. Acceptance tests performed for the fastening item (Annex number, test body, test report number, and date)

Annex 3 HAMK Ohutlevykeskus, Report no: 2017-21, 15.3.2017

Annex 4 HAMK Ohutlevykeskus, Report no: 2017-79, 19.1.2018

12. Name and publication date of the installation instructions from the manufacturer or representative (Annex 1)

KAPU® Safety Railing Sleeve, Technical manual 01/2020

13. Quality control

The quality control of the manufacturer of the connecting parts is controlled by accredited 3rd party which delivers quality control reports to the Concrete Association of Finland. SFS-EN ISO 17660-1 'Welding. Welding of reinforcing-steels) must be followed. This product declaration by the Concrete Association of Finland requires an approved initial inspection for each manufacturer.

14. Other information

KAPU® Safety Railing Sleeves have been tested in accordance with the SFS-EN 13374 standard for temporary loads on guardrails in protection classes A and B. Prior using the product please read technical manual Annex B, Safe Use and Inspection of the Product.

15. Additional information, not public (annex number, title, and date)

Annex 2 KAPU temporary edge protection, Static calculation EN + NA of Finland, 3.10.2019

Annex 3 HAMK Ohutlevykeskus, Report no: 2017-21, 15.3.2017

Annex 4 HAMK Ohutlevykeskus, Report no: 2017-79, 19.1.2018

Annex 5 Manufacturing drawings, dated 14.10.2019

Annex 6 Manufacturing units, dated 14.10.2019

16 Annexes (annex number, name, and publication date)

Annex 1 KAPU® Safety Railing Sleeve, Technical manual 01/2020

We hereby declare that the information that we have provided is correct

Lahti October 14th, 2019

Signature.....

Name (printed) Ilkka Kaipainen Peikko Finland Oy

This product declaration can be withdrawn at the discretion of the Concrete Association of Finland. Reasons for withdrawal may include:

- The information provided when the application for the product declaration was made is shown to be erroneous
- An unreasonable decrease in quality or repeated minor decreases in quality are observed in the product subject to this product declaration