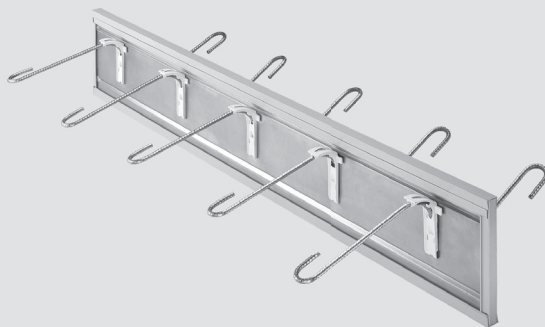
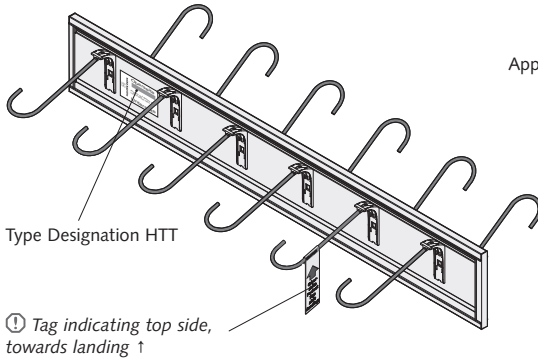


- GB** Impact Sound Insulation Elements
- D** Trittschalldämmelemente
- PL** Elementy z izolacją akustyczną

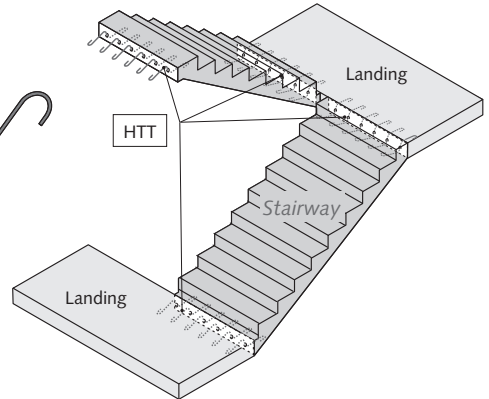


Assembly Instructions • Montageanleitung • Instrukcja montażu

## Identification



## Application example



Example type designation:

HTT-4 - 18 - 100

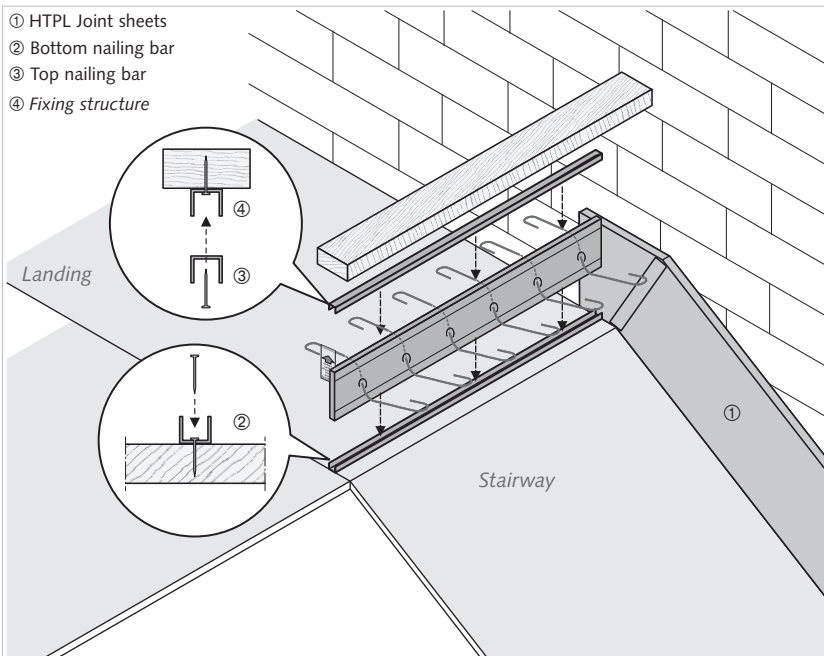
Element length l [cm]

Height landing [cm]

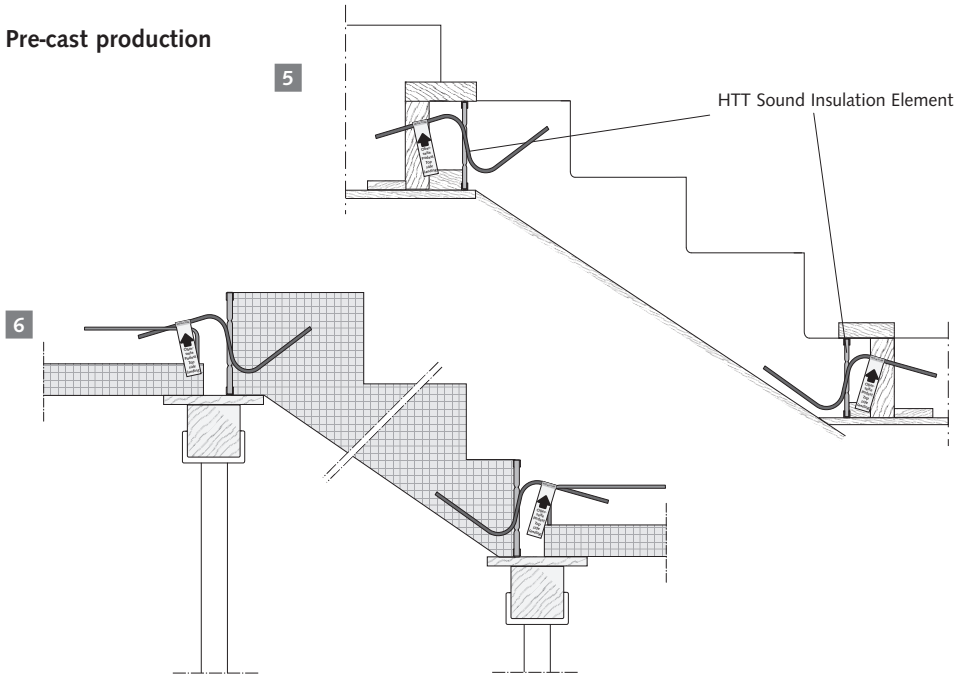
Product group/load range

## Installation

## In-situ concreting

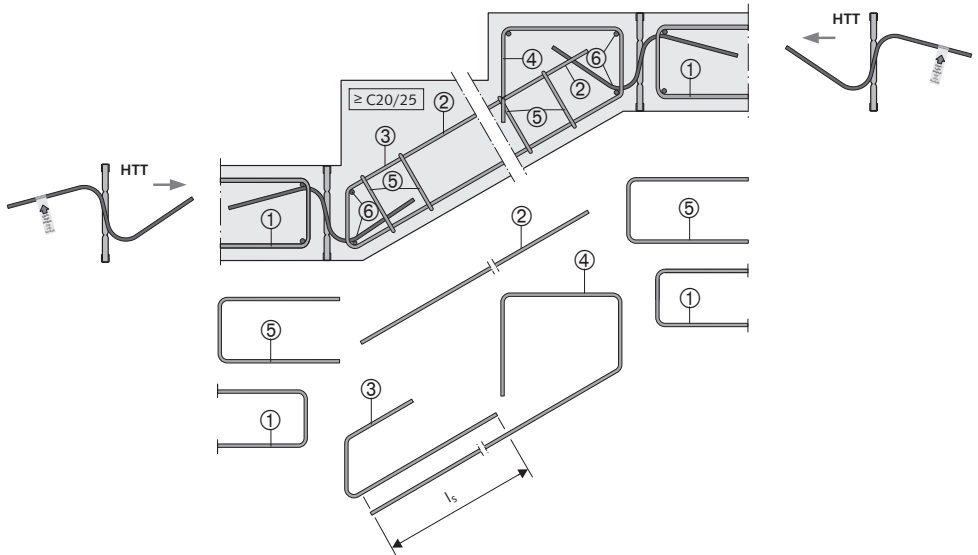


## Pre-cast production



- 1 HTPL Joint sheets ① to be attached on the side wall following the stairway using the integrated self-adhesive tape. The joints must be cleaned carefully and carried out without lack! Afterwards they have to be closed with adhesive tape.
- 2 Bottom HTT nailing bar ② to be fixed to the formwork at the appropriate place. Insert HTT Element.
- 3 Top HTT nailing bar ③ to be attached using a fixing structure (e.g. timber batten ④) and placed on the HTT Impact sound insulation unit from the top. The HTT Element must be aligned and fixed vertically and at the appropriate position.
- 4 Installation of site reinforcement according to accounts of the structural engineer. Concreting landing and stairway.
- 5 Shuttering in the pre-cast plant
- 6 Installation on the construction site

## On-site additional reinforcement



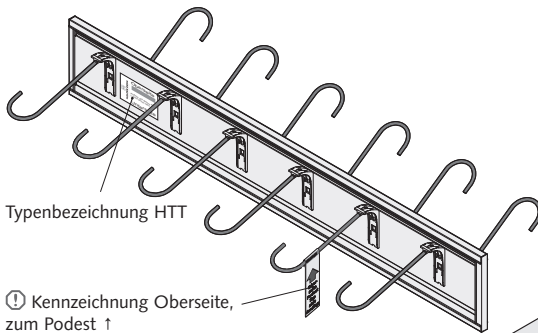
The additional on-site reinforcement is to be installed according to the reinforcement drawings and the engineers specification.

Typical design:

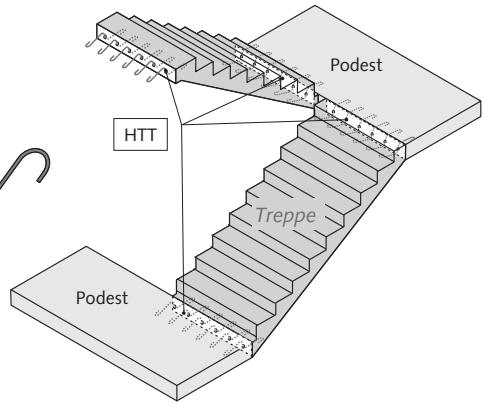
- ① End stirrups or mesh reinforcement
- ② Top reinforcement layer
- ③ End stirrup, bent up as hang-up reinforcement
- ④ Bottom reinforcement layer, bent up as hang-up reinforcement
- ⑤ End stirrups, 2x diam. 6 each
- ⑥ Bar reinforcement    diam. 8 (HTT-4, -6)  
                                  diam. 10 (HTT-8)

ⓘ Annotation: item ① - ④ to be calculated by static requirements

**Kennzeichnung**



**Anwendungsbeispiel**



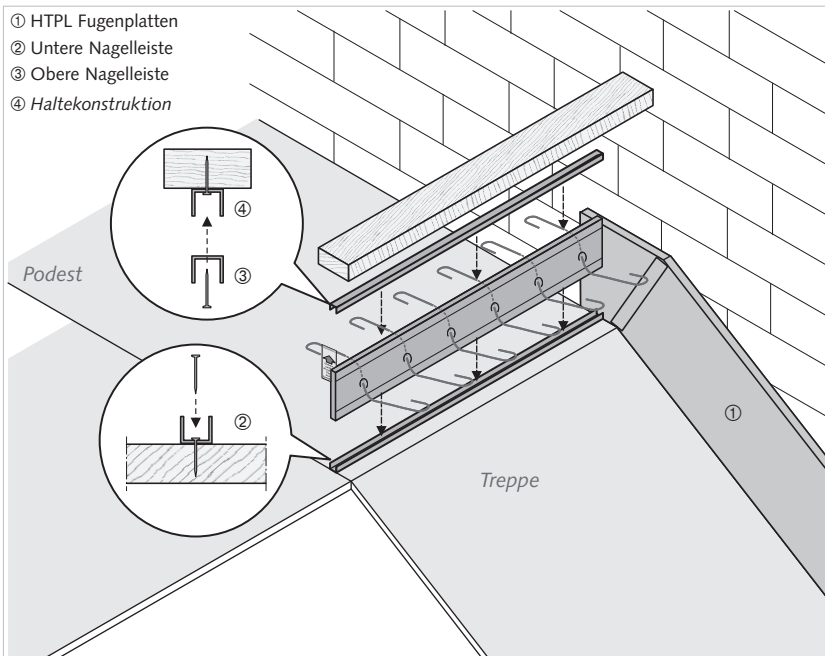
Beispiel Typenbezeichnung:

**HTT-4 - 18 - 100**

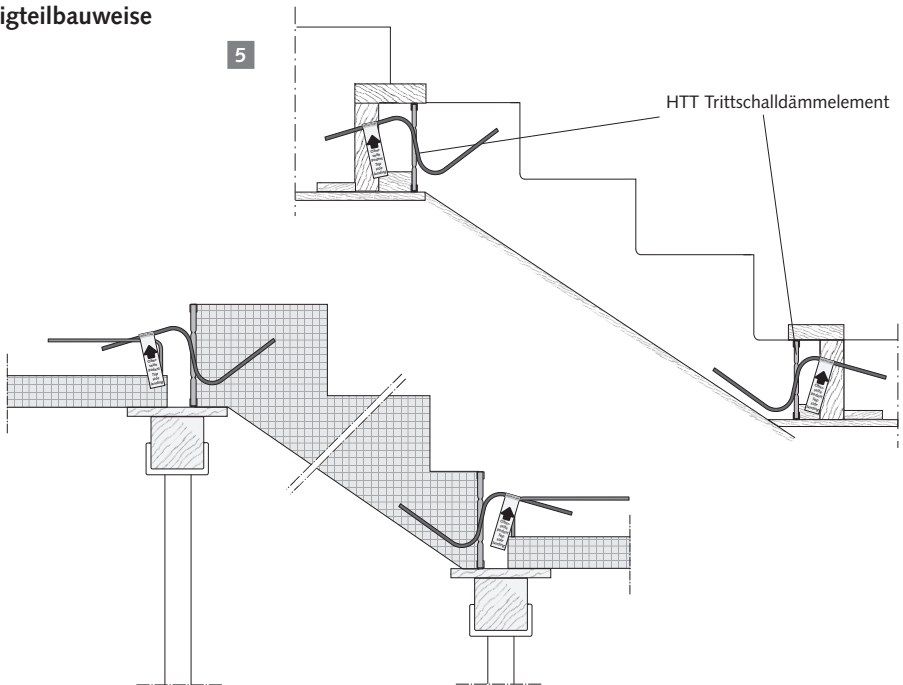
- Elementlänge l [cm]
- Höhe Podest [cm]
- Produktgruppe/Laststufe

**Einbau**

**Ortbeton-Bauweise**

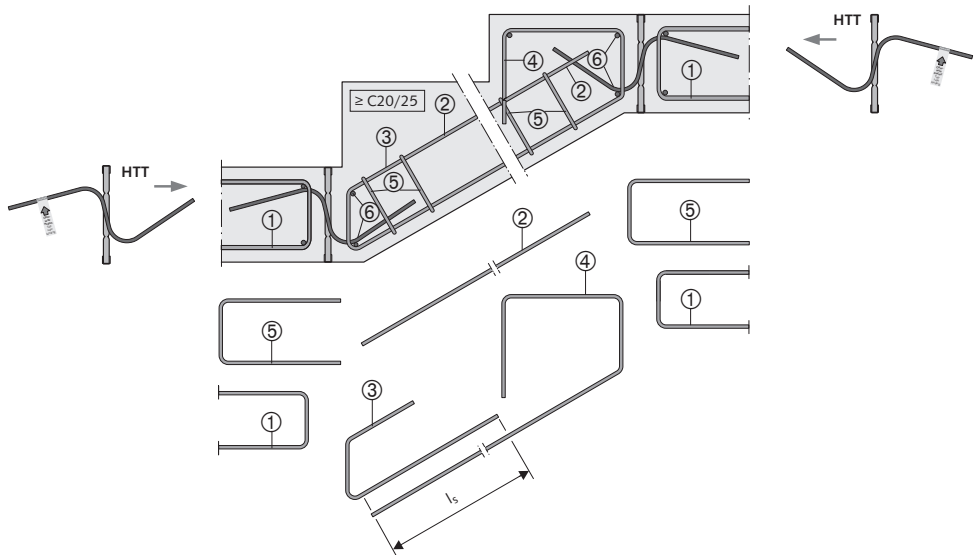


## Fertigteilbauweise



- 1 HTPL Fugenplatten ① seitlich dem Treppenlauf folgend an der Treppenhauswand ankleben. Fugen sorgfältig und lückenlos ausführen und mit Klebeband verschliessen.
- 2 HTT Nagelleiste ② unten an der vorgesehenen Stelle an die Schalung nageln. HTT Trittschalldämmelement aufsetzen.
- 3 Obere HTT Nagelleiste ③ an Haltekonstruktion (z.B. Holzleiste bauseits ④) annageln und von oben auf das HTT Element aufsetzen. Das HTT Element muss senkrecht und lagerichtig ausgerichtet und fixiert sein.
- 4 Einbau der Bauseitigen Bewehrung nach Angabe des Statikers. Betonieren von Podest und Treppenlauf.
- 5 Abschalung im Fertigteilwerk.
- 6 Einbau auf der Baustelle.

## Bauseitige Zulagebewehrung



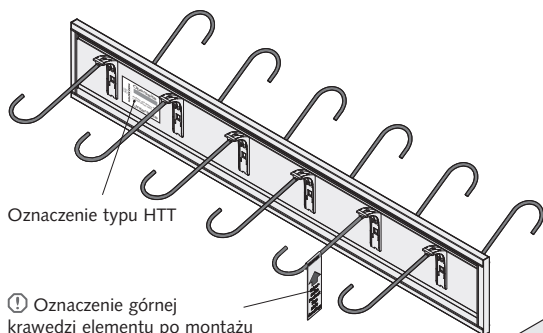
Bauseitige Zulagebewehrung gemäß den Angaben des Statikers einbauen. (Typenprüfung beachten)

Typische Ausführung:

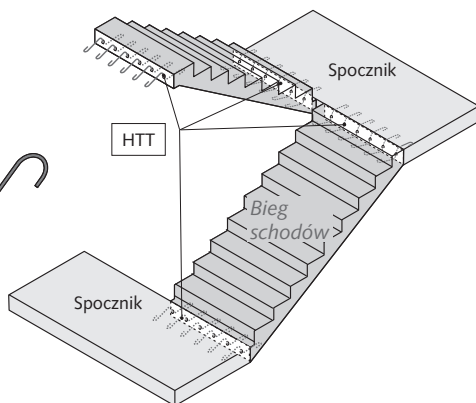
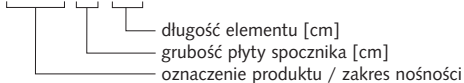
- ① Steckbügel oder Betonstahlmatte
- ② Obere Bewehrungslage
- ③ Steckbügel mit Aufbiegung als Aufhängebewehrung
- ④ Untere Bewehrungslage mit Aufbiegung als Aufhängebewehrung
- ⑤ Steckbügel, je 2 Ø 6
- ⑥ Stabstahl Ø 8 (HTT-4, -6)  
Ø 10 (HTT-8)

! Anmerkung: Pos. ① - ④ nach statischen Erfordernissen ermitteln

## Oznaczenia

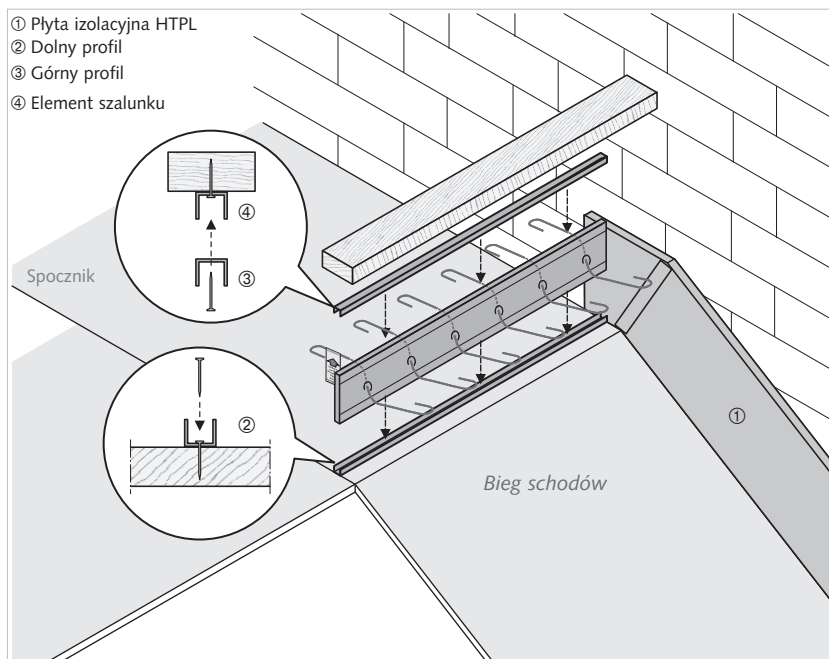


## Przykład zastosowania

Przykładowy opis elementu: **HTT-4 - 18 - 100**

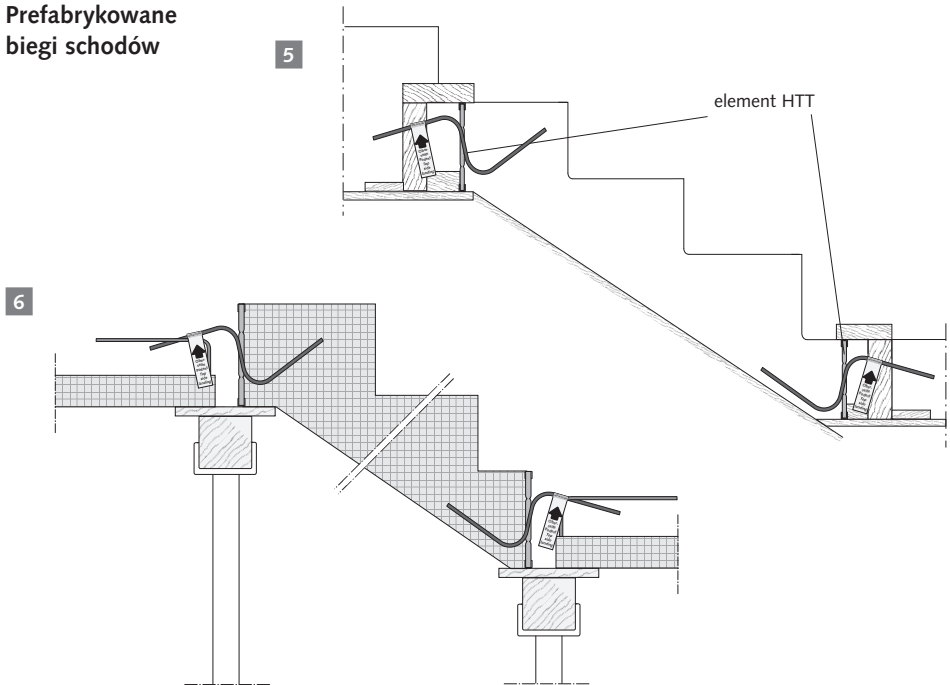
## Montaż elementów HTT na budowie

## Betonowanie biegów i spoczników na budowie



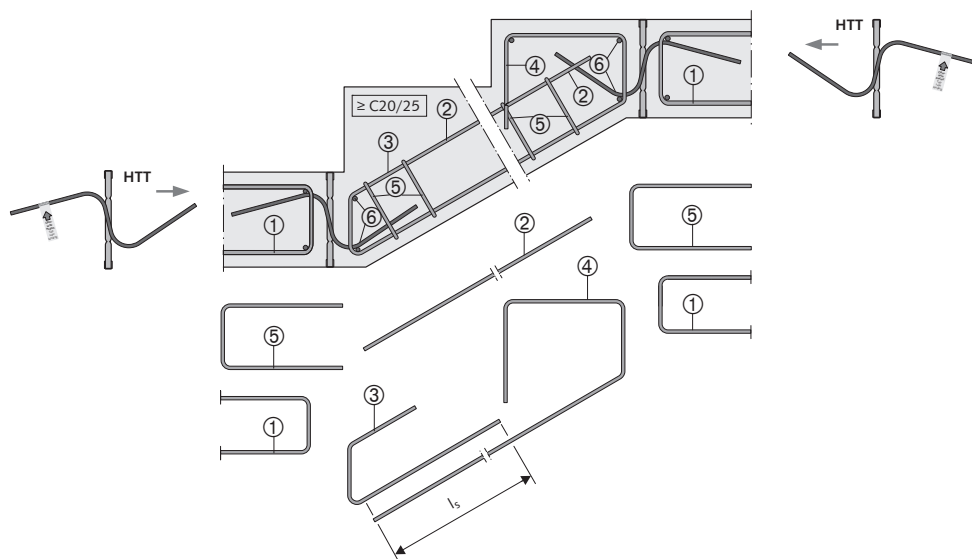


## Prefabrykowane biegi schodów



- 1 Płyte izolacyjną HTPL zamocować na ścianie bocznej wzdłuż biegów schodów za pomocą taśmy klejącej ①. Pomiędzy płytami nie mogą występować przerwy ani szczeliny.
- 2 Dolną kształtkę cewą ② elementu HTT przybić gwoździami do deskowania. Wsunąć element HTT.
- 3 Górną kształtkę cewą ③ elementu HTT przybić gwoździami do elementu podtrzymującego ④ (np. listwy drewnianej) i umieścić na elemencie HTT. Przed betonowaniem należy wyrównać ustawienie elementu HTT w pionie i w poziomie.
- 4 Montaż zbrojenia biegów i podestów wg projektu wykonawczego. Betonowanie schodów.
- 5 Wbudowanie elementu HTT w biegu schodów w zakładzie prefabrykacji. Zbrojenie i betonowanie podestów na budowie.
- 6 Biegi schodów i podesty prefabrykowane. Zbrojenie górne i betonowanie podestów na budowie.

## Zbrojenie montowane na budowie



Dodatkowe zbrojenie musi być wykonane zgodnie z projektem wykonawczym.

Typowy układ zbrojenia:

- ① Strzemiona lub mata zbrojeniowa
- ② Zbrojenie górne
- ③ Strzemię podwieszające
- ④ Zbrojenie dolne
- ⑤ Strzemiona 2 Ø 6
- ⑥ Pręt Ø 8 (HTT-4, -6)  
Ø 10 (HTT-8)

ⓘ Uwaga: Poz. ① - ④ przyjęć na podstawie obliczeń statycznych

## CONTACT HALFEN WORLDWIDE

HALFEN is represented by subsidiaries in the following countries, please contact us:

Austria	HALFEN Gesellschaft m.b.H. Leonard-Bernstein-Str. 10 1220 Wien	Phone: +43-1-2596770 E-Mail: office@halfen.at Internet: www.halfen.at	Fax: +43-1-259-677099
Belgium / Luxembourg	HALFEN N.V. Borkelstraat 131 2900 Schoten	Phone: +32-3-6580720 E-Mail: info@halfen.be Internet: www.halfen.be	Fax: +32-3-6581533
China	HALFEN Construction Accessories Distribution Co.Ltd. Room 601 Tower D, Vantone Centre No.A6 Chao Yang Men Wai Street Chaoyang District Beijing · P.R. China 100020	Phone: +86-1059073200 E-Mail: info@halfen.cn Internet: www.halfen.cn	Fax: +86-1059073218
Czech Republic	HALFEN s.r.o. Business Center Šafránkova Šafránkova 1238/1 155 00 Praha 5	Phone: +420-311-690060 E-Mail: info@halfen.cz Internet: www.halfen.cz	Fax: +420-235-314308
France	HALFEN S.A.S. 18, rue Goubet 75019 Paris	Phone: +33-1-44523100 E-Mail: halfen@halfen.fr Internet: www.halfen.fr	Fax: +33-1-44523152
Germany	HALFEN Vertriebsgesellschaft mbH Liebigstr. 14 40764 Langenfeld	Phone: +49-2173-9700 E-Mail: info@halfen.de Internet: www.halfen.de	Fax: +49-2173-970225
Italy	HALFEN S.r.l. Soc. Unipersonale Via F.lli Bronzetti N° 28 24124 Bergamo	Phone: +39-035-0760711 E-Mail: tecnico@halfen.it Internet: www.halfen.it	Fax: +39-035-0760799
Netherlands	HALFEN b.v. Oostermaat 3 7623 CS Borne	Phone: +31-74-267 1449 E-Mail: info@halfen.nl Internet: www.halfen.nl	Fax: +31-74-267 2659
Norway	HALFEN AS Postboks 2080 4095 Stavanger	Phone: +47-51823400 E-Mail: post@halfen.no Internet: www.halfen.no	Fax: +47-51823401
Poland	HALFEN Sp. z o.o. Ul. Obornicka 287 60-691 Poznan	Phone: +48-61-622 14 14 E-Mail: info@halfen.pl Internet: www.halfen.pl	Fax: +48-61-622 14 15
Spain	HALFEN Spain PLAKABETON S.L. Poligono Industrial Santa Ana c/ Ignacio Zuloaga 20 28522 Rivas-Vaciamadrid	Phone: +34 916 669 181 E-Mail: info@halfen.es Internet: www.halfen.es	Fax: +34 916 669 661
Sweden	Halfen AB Vådursgatan 5 412 50 Göteborg	Phone: +46-31-985800 E-Mail: info@halfen.se Internet: www.halfen.se	Fax: +46-31-985801
Switzerland	HALFEN Swiss AG Hertistrasse 25 8304 Wallisellen	Phone: +41-44-8497878 E-Mail: info@halfen.ch Internet: www.halfen.ch	Fax: +41-44-8497879
United Kingdom / Ireland	HALFEN Ltd. A1/A2 Portland Close Houghton Regis LU5 5AW	Phone: +44-1582-470300 E-Mail: info@halfen.co.uk Internet: www.halfen.co.uk	Fax: +44-1582-470304
United States of America	HALFEN USA Inc. PO Box 18687 San Antonio TX 78218	Phone: +1 800.423.91 40 E-Mail: info@halfenusa.com Internet: www.halfenusa.com	Fax: +1 877.683.4910
<b>For countries not listed</b> HALFEN International	HALFEN International GmbH Liebigstr. 14 40764 Langenfeld / Germany	Phone: +49 -2173-970-0 E-Mail: info@halfen.com Internet: www.halfen.com	Fax: +49-2173-970-849

Furthermore HALFEN is represented with sales offices and distributors worldwide.



Please contact us: [www.halfen.com](http://www.halfen.com)

### NOTES REGARDING THIS DOCUMENT

**Technical and design changes reserved.** The information in this publication is based on state-of-the-art technology at the time of publication. We reserve the right to make technical and design changes at any time. HALFEN GmbH shall not accept liability for the accuracy of the information in this publication or for any printing errors.

The HALFEN GmbH subsidiaries in Germany, France, the Netherlands, Austria, Poland, Switzerland and the Czech Republic are Quality Management certified according to **ISO 9001:2015**, Certificate no. 202384-2016-AQ-GER-Dakks.



