

# MINI CEM-E connector

Shank Ø 10 mm - screw Ø 10 mm

## The connector used with thin additional slabs

MINI CEM-E is the new screw connector with CE mark, designed to join a thin slab (from 20 mm) with concrete floor joists, including those with reduced dimensions. This connector is recommended in particular for joining the joists to high performance fibre reinforced concrete slabs. Thanks to the Hi-Low thread, it can be dry fixed into the support without the need for resins or other adhesives. Its free-spinning washer permits correct contact with concrete surfaces that are not perfectly level.

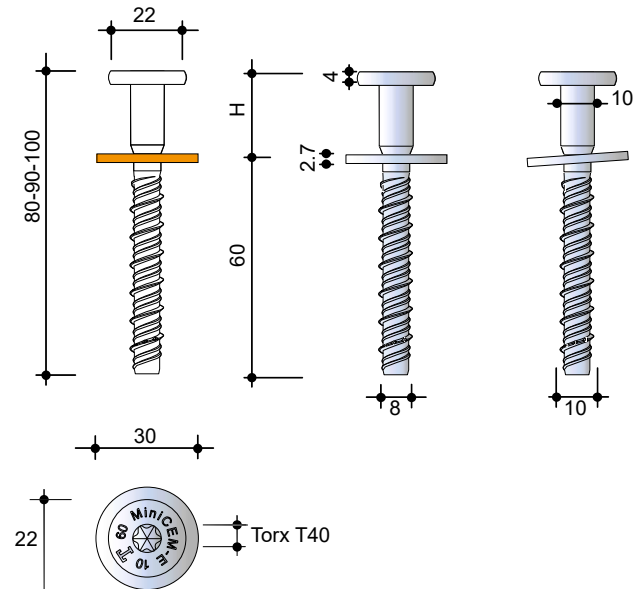
### Data Sheet

The connector comprises:

**A)** A shank in hardened carbon steel. The lower part has a hi-low thread for concrete that measures 10 mm in diameter and 60 mm in length. The upper part is a stud 10 mm in diameter and 20, 30 or 40 mm in length, with a 22 mm head and a T40 Torx recess.

**B)** A Ø 30 mm, 2,7 mm thick free-spinning washer in steel

**Specifications:** Stud connector with galvanised screw for concrete casting integration. Element comprising a shank in hardened carbon steel with Ø 10 mm, 60 mm threaded body; a Ø 10 mm, 20, 30 or 40 mm stud with a pre-assembled 2,7 mm thick free-spinning steel washer 30 mm in diameter and a T40 Torx recess.



Code	Connector height
MINI CEM-E 10/020	20 mm
MINI CEM-E 10/030	30 mm
MINI CEM-E 10/040	40 mm

## Strength of the MINI CEM -E connector

The MiniCEM-E connector is CE marked. Its shear strength is calculated using Eurocode 2 EN 1992-4 from the data given in ETA 20/0831 (CEM 10.5).

### Shear resistance in case of application on a solid slab

Strength of existing concrete	Shear resistance $P_{Rd}$
C20/25 non-cracked	9.90 kN
C20/25 cracked	6.93 kN
C25/30 non-cracked	11.07kN
C25/30 cracked	7.75 kN

20  
DoP: 20/0831  
EAD 330232-00-0601



The values indicated are calculated using the Eurocode formulae and indicate the pry-out failure of the existing concrete. Shear strength  $P_{Rd}$  of the steel of the MINI CEM-E connector: 13.04 kN.

## Installation of the MINI CEM-E connector

Remove the existing flooring and strip any extra covering of the concrete joists.  
In the case of a floor with concrete topping, locate the joists through special probes.  
Anchor the connectors on the joists.

- Mark the points where the connectors are to be fixed, following the guidelines (fig. 1)
- Drill a hole with an 8 mm bit to a depth of 70 mm (fig. 2)
- Remove the cement dust using a blowing or suction device in the hole (fig. 3)
- Insert the screw in the hole and tighten it all the way with an impulse driver or electric driver with clutch (fig. 4).
- Make sure not to over-tighten the screw (fig. 5)

