

## 5 CLAIMS:

1. A connection assembly for connecting a bolt to a slab, the connection assembly comprising:

a first connection part comprising:

10 a first clamping member; and

a first hollow-tubular-connecting-structure extending from the first clamping member, the first hollow-tubular-connecting-structure having a threaded interior wall and an exterior wall having a first engagement element;

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a second connection part comprising:

a second clamping member; and

a second hollow-tubular-connecting-structure extending from the second clamping member, the second hollow-tubular-connecting-structure having an interior wall having a second engagement element, wherein an inner diameter of the second hollow-tubular-connecting-structure is equal or larger than an outer diameter of the first hollow-tubular-connecting-structure and wherein the second clamping member comprises an opening providing access to an inner cavity of the second hollow-tubular-connecting-structure,

25 wherein the first connection part and the second connection part are connectable to each other with the first hollow-tubular-connecting-structure of the first connection part and the second hollow-tubular-connecting-structure of the second connection part aligned along a connection axis and directed towards each other such that the first hollow-tubular-connecting-structure is insertable into the second hollow-tubular-connecting-structure to form a connection along the connection axis with the first engagement element of the exterior wall of the first hollow-tubular-connecting-structure and the second engagement element of the interior wall of the second clamping member engaged to each other.

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2. The connection assembly of claim 1, wherein the first connection part and the second connection part are capable of being assembled to the slab in a manner so as to sandwich the slab with the first clamping member and the second clamping member between two opposite surfaces of the slab and with the connection axis of the connection between the first hollow-tubular-connecting-structure and the second hollow-tubular-connecting-structure extending through a through-hole in the slab which extends between the two opposite surfaces of the slab, whereby the bolt is connectable to the slab with the connection assembly by screwing the bolt into the first hollow-tubular-connecting-structure of the first connection part for threaded engagement with the threaded interior wall of the first hollow-tubular-connecting-structure through the opening in the second clamping member of the second connection part.

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3. The connection assembly of claim 1 or 2, wherein the first clamping member comprises an opening providing access to an inner cavity of the first hollow-tubular-connecting-structure of the first connection part, whereby the bolt screwed into the first hollow-tubular-connecting-structure of the first connection part through the opening in the second clamping member of the second connection part is capable of penetrating the first connection part to protrude from the opening of the first clamping member.

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4. The connection assembly of any one of claims 1 to 3,  
wherein the first engagement element comprises exterior screw threads; and  
wherein the second engagement element comprises interior screw threads.

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5. The connection assembly of any one of claims 1 to 4, wherein the first clamping member further comprises:

an anti-rotation element configured to engage the slab for impeding a rotation of the first connection part about the connection axis.

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- 5           6. The connection assembly of claim 5, wherein the anti-rotation element comprises a protruding structure extending from the first clamping member in a same extension direction as the first hollow-tubular-connecting-structure.
- 10           7. The connection assembly of any one of claims 1 to 6,  
              wherein the first clamping member comprises a first plate; and  
              wherein the first hollow-tubular-connecting-structure extends perpendicularly from the first plate.
- 15           8. The connection assembly of any one of claims 1 to 7,  
              wherein the second clamping member comprises a second plate, and  
              wherein the second hollow-tubular-connecting-structure extends perpendicularly from the second plate.
- 20           9. The connection assembly of any one of claims 1 to 8, wherein the opening of the second clamping member is a polygonal-shaped opening having a minimum width equal or larger than an inner diameter of the first hollow-tubular-connecting-structure.
- 25           10. The connection assembly of claim 9, wherein the opening of the second clamping member is a hexagonal-shaped opening.
- 30           11. The connection assembly of any one of claims 1 to 10, further comprising a welding joint connecting the first hollow-tubular-connecting-structure to the first clamping member.
- 35           12. A levelling or lifting system for a slab, comprising:  
              the connection assembly of any one of claims 3 to 11;  
              the slab; and  
              a levelling bolt or a lifting bolt,  
              wherein the first connection part of the connection assembly and the second connection part of the connection assembly are connected to each other in a manner so as to sandwich the slab between the first clamping member of the first

- 5 connection part and the second clamping member of the second connection part  
between two opposite surfaces of the slab,  
wherein the first hollow-tubular-connecting-structure of the first connection  
part and the second hollow-tubular-connecting-structure of the second connection  
part are aligned along the connection axis which extends through a through-hole of  
10 the slab extending between the two opposite surfaces of the slab and are directed  
towards each other, and the first hollow-tubular-connecting-structure is inserted  
into the second hollow-tubular-connecting-structure to form the connection  
between the first hollow-tubular-connecting-structure and the second hollow-  
tubular-connecting-structure along the connection axis within the through-hole of  
15 the slab,  
wherein the first engagement element of the exterior wall of the first  
hollow-tubular-connecting-structure and the second engagement element of the  
interior wall of the second clamping member are engaged to each other,  
wherein the levelling bolt or the lifting bolt is connected to the slab, for  
20 lifting or levelling the slab, by screwing the levelling bolt or the lifting bolt into the  
first hollow-tubular-connecting-structure of the first connection part through the  
opening in the second clamping member of the second connection part, whereby  
the levelling bolt or the lifting bolt is in threaded engagement with the threaded  
interior wall of the first hollow-tubular-connecting-structure.  
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13. The system of claim 12, wherein the lifting bolt comprises a hook at an end of the  
lifting bolt.
14. The system of claim 12, wherein the levelling bolt has a length greater than a  
30 thickness of the slab.
15. A method of levelling a slab, the method comprising:  
assembling the connection assembly according to any one of claims 3 to 11  
to the slab in a manner so as to sandwich the slab between the first clamping  
35 member of the first connection part of the connection assembly and the second  
clamping member of the second connection part of the connection assembly and

- 5           with the connection between the first hollow-tubular-connecting-structure and the second hollow-tubular-connecting-structure within a through-hole in the slab; and  
              connecting a levelling bolt to the connection assembly by screwing the  
              levelling bolt into the first hollow-tubular-connecting-structure of the first  
              connection part through the opening in the second clamping member of the second  
10           connection part in a manner so as to penetrate the first hollow-tubular-connecting-  
              structure of the first connection part to protrude from the opening of the first  
              clamping member of the first connection part.
16.       The method of claim 15, further comprising adjusting a levelling height of the slab  
15           to a predetermined height with respect to a ground by screwing or unscrewing the  
              levelling bolt relative to the connection assembly.
17.       The method of claim 16, further comprising filling a gap between the slab and the  
              ground with a filler material.
- 20           18.       The method of claim 17, further comprising disconnecting the levelling bolt from  
              the connection assembly by unscrewing the levelling bolt.
19.       The method as of claim 18, further comprising disassembling the connection  
25           assembly by separating the second connection part from the first connection part.