

CLAIMS

1. A coupling assembly comprising:
 - a first coupling member comprising a first protruding portion along a first direction and a second protruding portion along a second direction different from the first direction;
 - a second coupling member comprising a cover defining a slot opening and a holder coupled to the cover, the holder defining an enclosure;
 - wherein the slot opening is configured to receive therethrough the first protruding portion when the first protruding portion is aligned with the slot opening, and wherein the slot opening is further configured to receive therethrough the second protruding portion when the second protruding portion is aligned with the slot opening; and
 - wherein the enclosure is configured to receive the first protruding portion and the second protruding portion.
2. The coupling assembly according to claim 1,
 - wherein the first coupling member comprises a central shaft;
 - wherein the first coupling member extends from the central shaft along the first direction; and
 - wherein the second coupling member extends from the central shaft along the second direction.
3. The coupling assembly according to claim 2,

wherein the first coupling member comprises a necking portion extending from the central shaft.

4. The coupling assembly according to claim 2 or claim 3,
wherein the first coupling member comprises a handle extending from the central shaft.
5. The coupling assembly according to claim 4,
wherein the handle is a lifting attachment or an eyebolt attachment.
6. The coupling assembly according to any one of claims 1 to 5,
wherein the second coupling member comprises an add-on component.
7. The coupling assembly according to claim 6,
wherein the add-on component is a built-in reinforcement or a reinforcement attachment component for attaching a reinforcement bar.
8. The coupling assembly according to claim 6 or claim 7,
wherein the second coupling member comprises a locking mechanism configured to lock the second protruding portion when the second protruding portion is received in the enclosure of the second coupling member.
9. The coupling assembly according to any one of claims 6 to 8,
wherein the second coupling member is configured to be embedded within a solid object.

10. The coupling assembly according to 9,
wherein the solid object is a precast component or a prefabricated component.
11. A method of coupling a first coupling member and a second coupling member, the method comprising:
aligning a first protruding portion of the first coupling member to a slot opening defined on a cover of the second coupling member, the first protruding portion extending along a first direction;
inserting the first protruding portion of the first coupling member through the slot opening such that the first protruding portion is received by an enclosure defined by a holder of the second coupling member, the holder coupled to the cover;
aligning a second protruding portion of the first coupling member to the slot opening, the second protruding portion extending along a second direction different from the first direction; and
inserting the second protruding portion of the first coupling member through the slot opening such that the second protruding portion is received by the enclosure.
12. The method according to claim 11,
wherein the first coupling member comprises a central shaft;
wherein the first coupling member extends from the central shaft along the first direction; and

wherein the second coupling member extends from the central shaft along the second direction.

13. The method according to claim 12,

wherein the first coupling member comprises a necking portion extending from the central shaft.

14. The method according to claim 12 or claim 13,

wherein the first coupling member comprises a handle extending from the central shaft.

15. The method according to claim 14,

wherein the handle is a lifting attachment or an eyebolt attachment.

16. The method according to any one of claims 11 to 15,

wherein the second coupling member comprises an add-on component.

17. The method according to claim 16,

wherein the add-on component is a built-in reinforcement or a reinforcement attachment component for attaching a reinforcement bar.

18. The method according to claim 16 or claim 17, further comprising:

using a locking mechanism of the second coupling member to lock the second protruding portion when the second protruding portion is received in the enclosure of the second coupling member.

19. The method according to any one of claims 16 to 18,
wherein the second coupling member is embedded within a solid object.
20. The method according to 19,
wherein the solid object is a precast component or a prefabricated component.