Create and apply galvanized steel or stainless steel connectors

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APPLICATION DATA SHEET

Structural connections with connectors made of galvanized steel or stainless steel fiber fabric.

1. substrate preparation;
2. drilling;
3. preparation of connectors;
4. insertion of the connector.

1) SUBSTRATE PREPARATION

If the substrate to be reinforced is particularly damaged, restore it. Remove the damaged parts and reconstruct the surface by choosing the proper Kimia product range in relation to the construction type on which the intervention will be performed. If provided, apply the type of reinforcement chosen in the project.

2) DRILLING

Drilling with a minimum diameter of at least 16 mm and a minimum depth of at least 20 cm (in any case it must comply with the one foreseen by the project).
Once the hole has been made, remove the dust with compressed air.

3) PREPARATION OF CONNECTORS

The connector will consist of a rectilinear part passing inside the hole and a bent and frayed part superficially on the masonry, above the FRCM reinforcement.
Cutting to size of the band in galvanized steel fiber **Kimisteel GLV 650** or in stainless steel **Kimisteel INOX 800** according to the project indications. The band will be cut from the roll by means of a hose or instrumentation for cutting metal sheets.
Mark the sections of the tape on which to fold.
The length of the part to be unravelled will be at least 15 cm.
If the connector is passing from one side to another, it will be necessary to make two bends, taking care to precisely measure the length of the hole. Place **Kimisteel BENDER** folder on a stable work surface and fix it to it with clamps or screws.
Insert the cut band of fabric into the **Kimisteel BENDER** folder and fold the fabric at 90°, exerting adequate pressure on the lever of the folder after positioning the fixing bar. The fixing bar has two sides: one with an inclination angle of 60° and the other with an angle of 40°. The first one is specific for the folding of **Kimisteel GLV 650**, while the second one for the folding of **Kimisteel INOX 800**.

Cut the steel threads that form the texture of the part of the fabric to be unravelled and roll up the part that will be inserted into the hole. In order to facilitate rolling operations, we recommend using rigid bars (for example **Kimitech TONDO VR** 6 mm) that can be removed after the insertion of the connector in the hole.
Alternatively, a hollow plastic tube can be used as an injector. Fix the bar with plastic ties, iron wire or tape.

4) INSERTION OF THE CONNECTOR

Inject into the previously prepared hole a suitable product according to the type of hole to be filled (**Limepor 100 GEL** for perforations in walls or **Betonfix 200 TH** for perforations in reinforced concrete).
In case of passing connectors, the extremity of the hole must be previously sealed, using the same matrix as the FRCM reinforcement provided. The injection pipe has to be long enough to allow filling even of the deepest portions of the hole. Then insert the connector previously made by letting out the excess product. Inject other materials for complete hole saturation. The remaining part of the connector not inserted in the hole will be radially opened and must be incorporated within the FRCM reinforcement matrix, above the reinforcement fabric in basalt or galvanized steel or stainless steel.