C-MATRIX

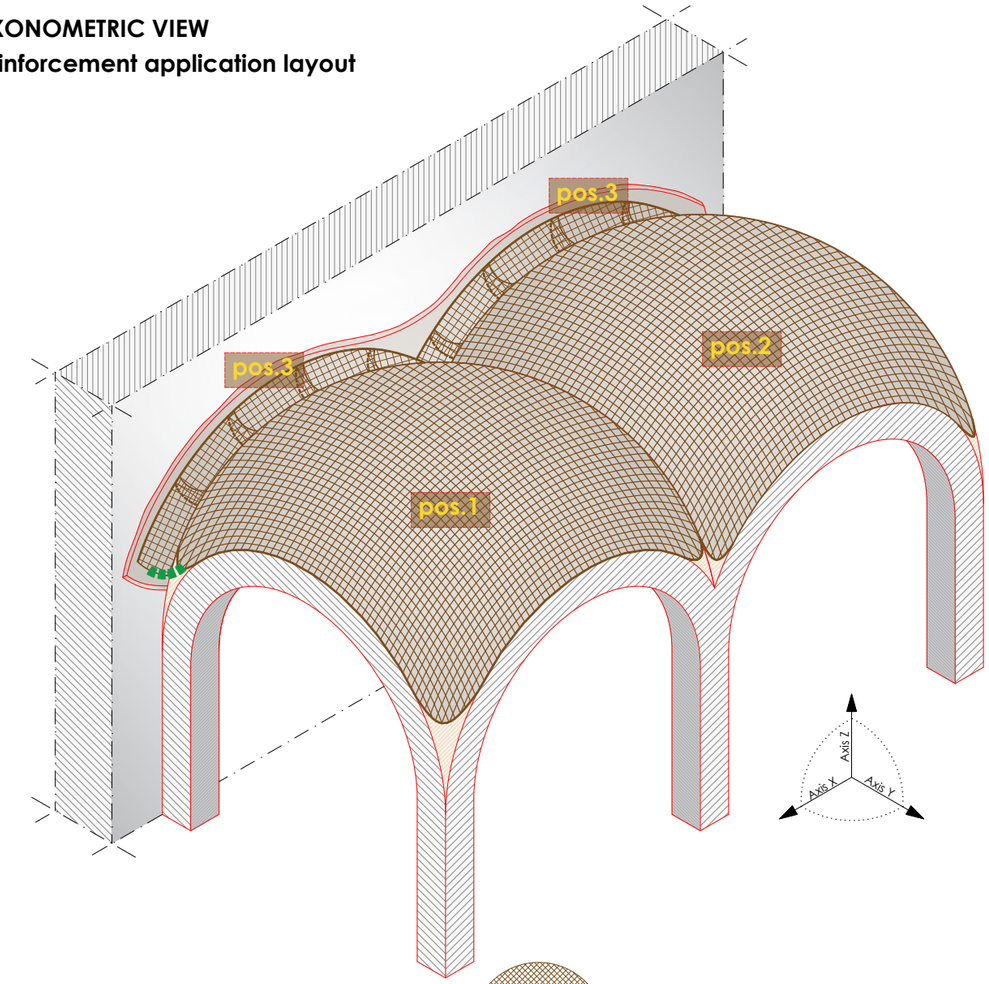
F.R.C.M. SYSTEM

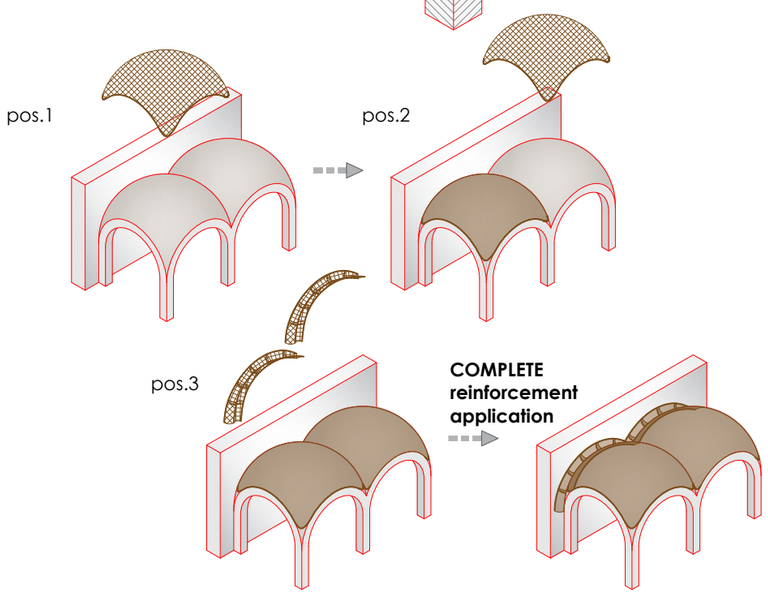
BARREL VAULT REINFORCEMENT

APPLICATION PHASES OF THE REINFORCEMENT ON THE EXTRADOS OF THE VAULT

FIBRE NET composite engineering

AXONOMETRIC VIEW
Reinforcement application layout





DESCRIPTION OF THE WORKS

NOTE: The system is applicable provided that the substrate has an adequate masonry quality index..

PHASE 0 – Substrate preparation

All loose, deteriorated, or detached parts must always be removed until sound substrate is reached.
For interventions on structural elements such as arches or vaults, complete removal of existing surface layers and/or covering layers is recommended.

In the specific case of vaults, for strengthening interventions on the extrados, any removal of the backfill must be carefully assessed based on its consistency and any stabilizing role it may play, and carried out in strict compliance with the construction phases specified in the design.
Before applying the system, thoroughly clean the surface of dust, grease, efflorescence, and other contaminants by pressure water washing at an appropriate pressure.

FOR ALL SUBSEQUENT APPLICATION PHASES, REFER TO DRAWING FRCM 01.a

Reinforcement joint detail

Stratigraphy Detail

installation of the first mortar layer and reinforcement

A = inorganic matrix thickness 4-5 mm

B = Thickness of eventual substrate leveling layer

NOTE: The first layer of inorganic matrix may include the thickness required for substrate regularization.

At the junctions between mesh sheets, both longitudinally and transversely, a minimum overlap of 300 mm must be ensured, as prescribed by CNR-DT 215/2018, to guarantee the continuity and effectiveness of the structural reinforcement.
Shorter overlaps are permitted only if supported by appropriate qualification tests, in accordance with the STC 2022 Guidelines and/or the relevant EADs.
At corners, properly rounded, the mesh must be folded back carefully, taking special care not to compromise the integrity of the fibers

MATERIAL IDENTIFICATION - C-MATRIX system

(Y) INORGANIC MATRIX
(E) REINFORCEMENT
(A1) FB-TUP10-....(bowed connectors)
(P3) FB-....INTEGRA FIXA-.... (anchoring resin)

Dimensions are expressed in mm unless otherwise specified.
For the materials table, refer to drawing FRCM 08

AREA DOWNLOAD