

BBR VT CONA CMP-C

Plate-based Compact active structural strengthening



The CONA® CMP-C system is a compact, thin plate (strip)-based active strengthening solution that maximizes structural span and minimizes clearance from the concrete.

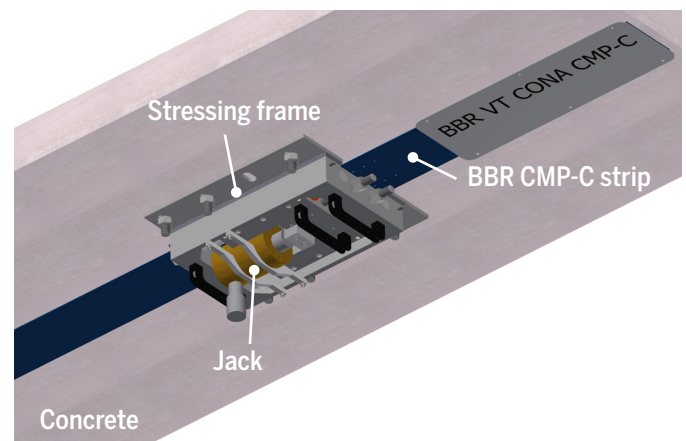
Its galvanized high-strength steel strip offers proven durability, corrosion protection and stress-corrosion performance.

A reusable stressing frame tensions the strip, which is permanently anchored to the structure. After stressing, the strip sits flush against the concrete, limiting impact on ceiling height and bridge clearance. Supplied in coils, the steel strip enables custom tendon lengths, flexible installation and low material waste.

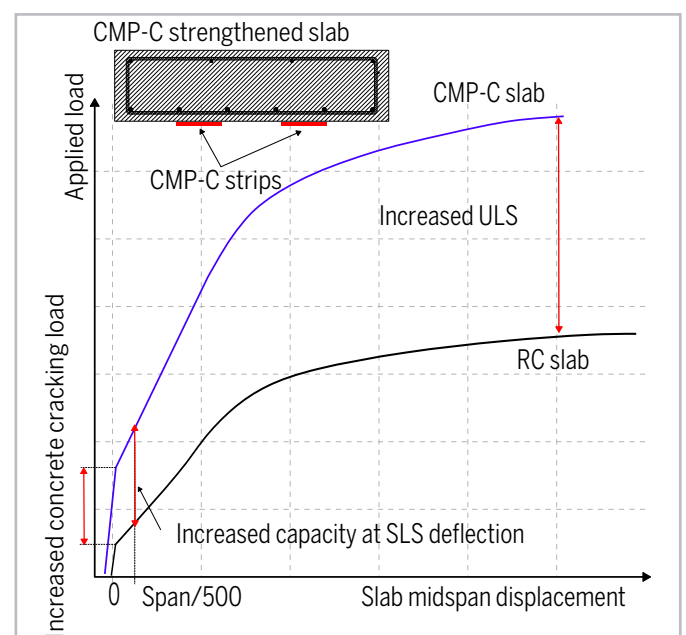
Performance and durability are validated by static, fatigue, stress-corrosion and slab testing.

Core specification

Maximum stressing force	Up to 120 kN
Stressing method	Hydraulic jack and stressing frame
Tension element cross section	120 x 2 mm ²
Distance from concrete surface	0 to 5mm over entire length
Corrosion protection	Galvanized
Minimum concrete grade	C20/25
Minimum tendon spacing	210 mm (edge to edge)



Slab strengthening with CMP-C



Performance increase with BBR active system

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Features

Installation

- Ultra-thin 2 mm steel-strip and low profile anchorages. Ideal where headroom or space is limited.
- No invasive work on the structure is required.
- No structural adhesive, grinding, surface preparation or curing time.
- Rapid compact hydraulic stressing jack enables fast installation.
- Prestressing improves flexural capacity and serviceability. Supports active crack closure.

System performance

- Full-span strengthening is possible. Anchorages can be positioned close to walls or columns.
- The reusable stressing frame reduces installation costs, material use and associated CO₂ emissions.
- The steel strip is supplied in coils and cut to length. Enables custom tendon lengths and minimizes waste.
- Up to 120 kN prestressing force per strip.

Durability

- Protective coating for effective corrosion protection.
- Excellent stress-corrosion performance, validated by testing.

Retrofitting for:

- Structural repair (cracking, excessive deflection), structural re-purpose & upgrade, and seismic strengthening.

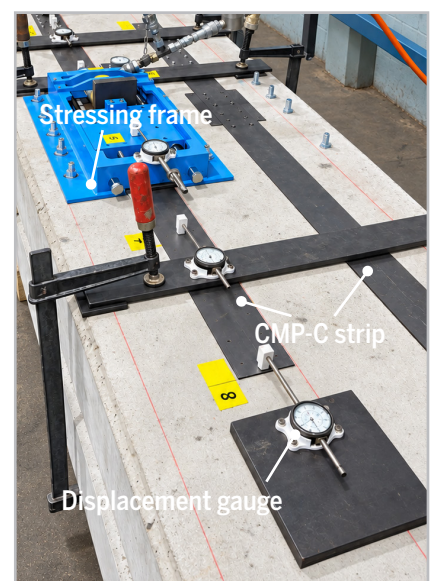
List of qualification testing

The complete system has been validated through static, two-million-cycle fatigue, corrosion and RC slab flexural testing.

Test	Reference/Condition
Static	EAD 160004-00-0301
Fatigue	EAD 160004-00-0301 (2mio cycles)
Stress corrosion	EN 15630-3
Assessment of assembly	On-site conditions
Strengthening efficiency	Flexural failure of strengthened and unstrengthened RC slab



RC slab flexural test with CMP-C, sample after test



Installation mock-up