

# Macalloy HybridAnker Plate

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Low reinforcement post tensioning plate

# MACALLOY are proud to announce the launch of its NEW Macalloy HybridAnker plate as an alternative to the standard steel plate which reduces the need for additional reinforcement.

The Macalloy HYBRIDANKER plates are made of fibre reinforced ultra high strength concrete and are used with Macalloy post tensioning systems for strengthening new and existing structures.

Macalloy HYBRIDANKER plate is the lightweight ETA approved Macalloy 1030 post tension plate for use in all post tension applications. Choose from the two options for the plates CoP plates are used without extra post tension reinforcement for use direct onto unreinforced anchorages, or the smaller cast in CAB plate with vastly reduced reinforcement requirement.

The Macalloy HybridAnker CoBeam is an intelligent solution for vertical PostTensioning Bar strengthening. The system replaces the traditional steel beam solution with an element made of fiber reinforced ultra-high strength concrete. The result is the benefit of a lighter element, high corrosion protection with durability. The geometry is adjustable to have a suitable width between the Post Tensioning Bars to allow a perfect fitting with the reinforced structure.

## Benefits of Macalloy HybridAnker Plates

- ETA approval for Carbon and Stainless Mac 1030 Bar for 32-50mm, with 75mm covered by ETA testing
- Retrofit capabilities for strengthening schemes where reinforcement is absent
- High corrosion protection and durability
- Simplifying the reinforcements especially in temporary solutions
- Use of Plates on inclined surfaces with ETA approval up to 30degrees
- Economic in diaphragm walls tunnelling and retaining walls
- Low carbon footprint and energy usage, up to 70% less energy and CO<sub>2</sub> is used in the manufacture of the HybridAnker plates compared to the traditional steel plates.
- Simple enhanced performance of anchorage zone without extra anchorage reinforcement
- Lighter structures and components reducing the handling and transport costs
- Reduced centre and edge distance of anchorages

## Typical Applications

- Strengthening of existing structures
- Bridges
- Historic Facades
- Monuments
- Retrofit including remedial work
- New structures

## NEW Macalloy HybridAnker plates are available in three types

### HybridAnker CoP

- Surface mounted onto structure
- No additional reinforcement required
- Inclined plate solutions available



### HybridAnker CAB

- Integrated into structure
- Reduced reinforcement required
- Minimum spacing



### HybridAnker CoBeam

- Shear Strengthening
- Adjustable Width
- Lightweight and easy to handle





### BRIDGE STRENGTHENING, HILDESHEIM (GERMANY)

The unreinforced concrete arch bridge from 1910 was strengthened using internally bonded Macalloy 1030 tendons. The arched bridge was drilled horizontally to install 4m long transverse steel tendons. The CoP type Macalloy HybridAnker Plate was supplied with an integral grout inlet.



### STRENGTHENING OF CARL-FRANCKE BRIDGE IN BREMEN.

All plates are bearing onto unreinforced concrete, benefiting from anchorages with compound angles. 14 anchorages at close centres for the retro fitting of longitudinal internal post tensioning on the bridge.



ETA - 21/0053 Tension Rod Systems  
BSEN ISO 9001: 2015



**Macalloy** | 100 years 1921-2021

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