

# GLULAM systems

Macalloy Tensile Solutions in Glulam and Timber Applications

The MACALLOY architectural system has been used in GLULAM and TIMBER applications around the world for many years. We are proud to announce the launch of our new Mac550 Architectural Tension System available in both Carbon, Galvanized and Stainless in an increased range of diameters to the existing 460/520 architectural systems.

The MACALLOY architectural system offers a light weight and transparent support for long span GLULAM or TIMBER beams and cross bracing coupled with the aesthetics of polished stainless or painted carbon.



Over the years **MACALLOY** has supported engineers in providing innovative solutions for **GLULAM and TIMBER** applications to suit static, quasi static or fatigue loaded applications. With the New Mac550 system which has ETA approval Macalloy can offer a higher capacity system with significant cost savings and a wider range of diameters.

**MACALLOY TENSILE PRODUCTS** can deal with the demanding work life of the new generation of multipurpose wood and **GLULAM and TIMBER** structures. **MACALLOY** is also capable of manufacturing bespoke structural elements in fabricated, forged or cast steel for multipurpose wood structures adding to its strength and stiffness.

**MACALLOY** is committed to buying 'green steel' to help our environment and reduce carbon emissions, our manufacturing process is based on recycled steel scrap and a Nordic fossil-free electricity mix. As a result, the carbon footprint of our steel bar is a full 80 PERCENT LOWER than the global average.

Partnered with the eco credentials of **GLULAM AND TIMBER** structures both wood and steel ensure the sustainable buildings of the future

For further information please speak with our engineering team at [TECHNICAL@MACALLOY.COM](mailto:TECHNICAL@MACALLOY.COM)

## Benefits of the Architectural Tension System in GLULAM applications:

- The **New Mac550** offers a higher yield and ultimate bar than the Mac460/520 systems in both stainless and carbon in a wider range of sizes
- The Architectural Tension System can offer reduced bar diameter with a transparent and unobtrusive appearance
- The Architectural Tension System is lighter and easier to install due to the reduced bar diameter
- The stainless Architectural Tension System is available in several polished finishes from bead blast to satin finish.
- The **MACALLOY TECHNOTENSIONER** solution for "in line" tensioning pretensions loads in **TENSILE BARS** as well as load monitoring post installation. **MACALLOY** has an extensive fleet of jacking equipment designed to meet most requirements and can design bespoke equipment for specialist applications. **MACALLOY SITE SERVICES** team can offer stressing support, training, advice and supervision.
- Corrosion protection is available on the Architectural Tension System. **MACALLOY** can offer protection with a variety of different coatings for various environments such as Hot dipped galvanising, powder coating or paint system.



**SCOTTISH PARLIAMENT, EDINBURGH.** This iconic, purpose-built structure houses over a thousand Members of Parliament and civil servants. Its design reflects the landscape, people and culture of Scotland and is constructed from steel, oak and granite. Macalloy 460 in diameters M10 to M56 and lengths of 6m for M64 and M76 were used to help support the roof within the Scottish Parliament Building, which was designed by Enric Miralles, and completed in 2004.

The **BANFF ELEMENTARY SCHOOL, ALBERTA**, Canada specified Macalloy 520 Tension Bars in M48 Carbon, with turnbuckles. Mass Timber Manufacturer – Structurlam. General Contractor- Clark Builders. Wood Framing Subcontractor - Mytec Framing. Architect - GEC Architecture. Structural Engineer- ISL Engineering and Land Services Ltd.



**JUDO GYM, CHATEAUBRIAND.** Macalloy 460 galvanised tie rods and fixed end compression struts form part of the main roof support system allowing the roof to span over 25 metres whilst maintaining a lightweight and aesthetically pleasing appearance. Macalloy SC460 stainless cables provide a discrete form of secondary bracing to the main structure. Macalloy 460 galvanised tie rods were also used to provide attractive and discrete vertical cross bracing support to the building façades.



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



**Macalloy** | **100 years**  
1921-2021

For further information call +44 (0)1909 519200  
email [sales@macalloy.com](mailto:sales@macalloy.com) or visit [macalloy.com](http://macalloy.com)

Caxton Way, Dinnington, Sheffield, S25 3QE, U.K.