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portico  
ALUMINIUM PORTAL FRAME SYSTEMS

FOR CONSERVATORIES,  
SWIMMING POOL ENCLOSURES  
& COMMERCIAL GLAZED STRUCTURES





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STRUCTURES

## INTRODUCTION

There is a growing requirement for Portal structures in conservatories, not just because of projected market growth, but due to the continuing introduction of more stringent regulations. As more conservatories fall into the requirement of building regulations, it will become necessary to build Portals much quicker, easier and more cost effective.

`PORTICO` is a unique Aluminium Portal Frame System that has many major advantages in design, fabrication and installation. Most Portals are manufactured by sub contracted steel or aluminium fabricators in box section welded frames. The new `PORTICO` system now gives conservatory and roof manufacturers total freedom to either manufacture their own Portal structure from bar length or buy in kit form, both with technical back-up.

## GENERAL DESCRIPTION

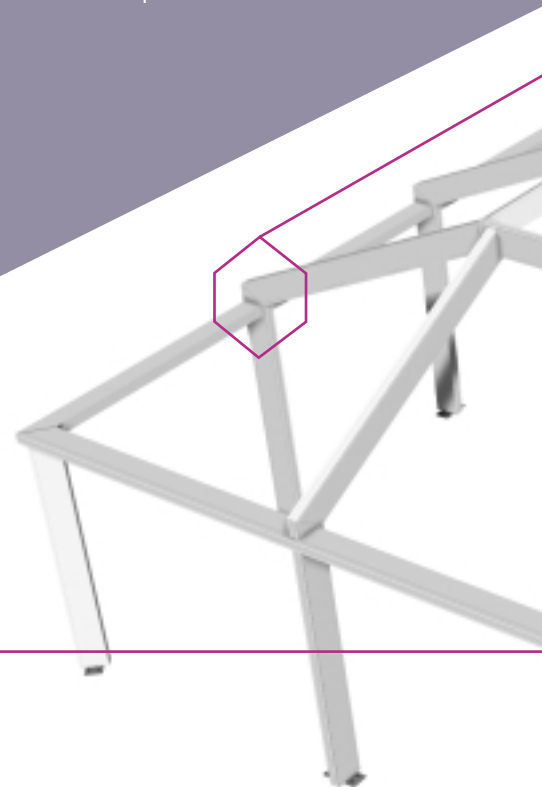
The `PORTICO` system differs to all current box section Portal systems as it consists of two aluminium `I` beam profiles for structural strength. These inter-connect to provide main vertical and roof truss beams and a smaller `I` beam for the ringbeam and purlin. Both `I` beams are cut to appropriate lengths and angles and bolted together with brackets (no welding). The erected `PORTICO` structure is then clad with specifically designed clip-fit PVCu cladding profiles which are cut-to-size as required.



### PORTAL RINGBEAM & PURLIN FIXING

The smaller `I` beam is used for the Ringbeam and Purlins. These are cut to length and inserted into the large `I` beam. At the connection, the beams are drilled and bolted through the bolt channel. All bolts are concealed by a clip-on PVCu cladding.

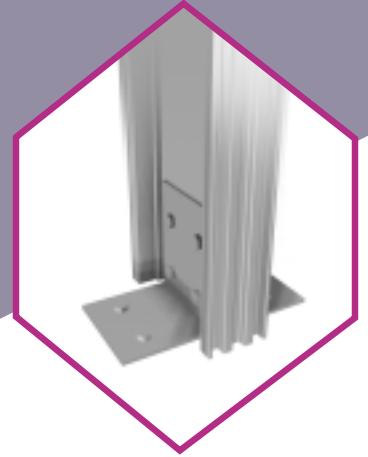
On top of the Purlin, an aluminium packing profile with PVCu cladding is used to bring the Purlin up to the same level as the main `I` beam. This ensures the correct height for glazing bar fixing. The smaller `I` beam has a specifically designed `U` shaped cladding that clips on.





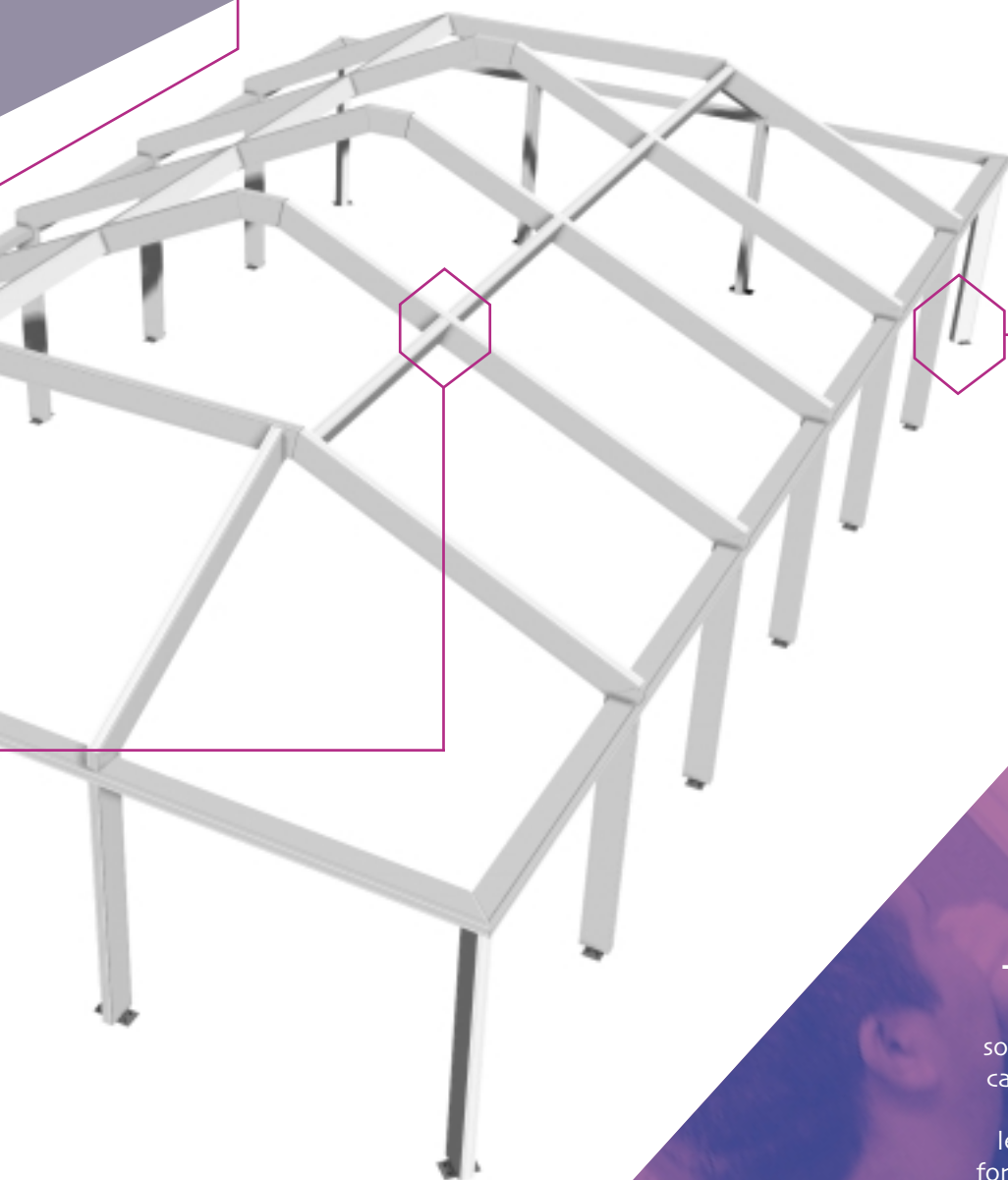
## PORTAL MAIN BEAM FIXING

The main 'I' beam is mitre cut according to the angle of the roof and fixed with custom prepared aluminium plate bracket kits. These are placed on both sides and bolted through, no welding is required. All brackets and fixings are concealed by PVCu claddings on completion.



## PORTAL FEET FIXING

Fixing of the main 'I' beam to the base is simply done with the use of 'L' brackets bolted into prepared foundation pads. All brackets and fixings are concealed by PVCu claddings.




## TECHNICAL SUPPORT

Using the latest structural modelling software, design drawings and cutting lists can be supplied for each 'PORTICO' Portal Structure; whether it is supplied as bar length or kit form. Structural calculations for building regulations can also be supplied.

## KEY FEATURES

- ❖ COST EFFECTIVE PORTAL SYSTEM
- ❖ DEDICATED PVCu CLIP-FIT CLADDING
- ❖ QUICK & EASY TO INSTALL
- ❖ EASIER TO MANUFACTURE
- ❖ UNIQUE FIXING SYSTEM - NO WELDING
- ❖ BAR LENGTH OR KIT FORM AVAILABLE
- ❖ ALL BRACKETS & FIXINGS HIDDEN
- ❖ ATTRACTIVE PVCu CLADDINGS
- ❖ FOILED FINISH OR DUAL COLOURS
- ❖ NO CONDENSATION PROBLEMS
- ❖ NO RUST OR SITE DAMAGE REPAIRS
- ❖ SUPER STRONG I BEAM PROFILES
- ❖ INTEGRAL CABLING CHANNELS
- ❖ COMPLEX STRUCTURES ACHIEVABLE
- ❖ EASIER TO HANDLE ON SITE
- ❖ NO CRANE OFFLOADING REQUIRED
- ❖ QUICK AVAILABILITY & DELIVERY
- ❖ DESIGN DRAWINGS & CUTTING LISTS
- ❖ STRUCTURAL CALCULATIONS SERVICE
- ❖ INSTALLATION SERVICE AVAILABLE



  
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Patent Pending

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