

# BuiltQuik Semi-modular Structural Frame Installation Guide



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# Overview

This guide is an overall description of the assembly process of the BuiltQuik system. Packaging will change from project to project depending on the scope of BuiltQuik's delivery package.

This provides an overview of the frame assembly, with some possible details of roof and wall junctions. Reference must always be made to the manufacture's installation guidelines.

The BuiltQuik semi-modular construction solution utilises integrated pre-engineered steel components that are packaged and delivered to site.

The components are assembled on site and then completed with traditional construction techniques.

We combine the on-site cost and time efficiency benefits of prefab with the customisable finishes of conventional buildings.

- Pre-engineered, semi-modular, prefabricated building components.
- Customisation of internal fit-outs and facades.
- Non-load bearing internal walls allow for easy adaptation of structure to retrofit for future needs.
- Certified by engineering partner SMEC Australia, independently of any custom fit-out design.
- BuiltQuik support local employment and skill development for installation of our frames.



# Pre-Installation

## Site Inspection

- Access for HIAB truck (or mobile crane) entry, exit.
- Working space for HIAB/mobile crane plus outriggers.
- Space and accessibility for lay down of columns, beams, rafters, purlins, add-on components, brackets and fixings.
- Overhead obstructions – trees, powerlines etc.
- Crane reach requirements, with consideration to any obstructions created by the assembled structure.
- Impact of adverse weather conditions



## Site Preparation

- Set out and install footings/piers as per engineered specification.
- Confirm piers are level/make any necessary adjustments/packing
- Ensure footings are signed off by the Principle Certifying Authority.



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# Construction Commencement

## Frame Delivery

- Columns, beams, rafters, purlins, add-on components, brackets and fixings will be loaded on top of the base panels.
- Transfer the columns, beams, rafters, purlins, add-on components, brackets and fixings to the laydown area via the HIAB/mobile crane.



## Installation of base panels

- Refer to the supplied installation sequence plan provided by your BuiltQuik consultant.
- Base panels will be loaded from top to bottom in sequence for unloading and installation.
- Unload each base panel and position onto the piers as per the plan following the labelling/coding system.
- Following the sequence plan and noting the labelling/coding system, position any base panel connectors and floor extension components.
- After ensuring base panel alignment with piers, adjacent base panels, connectors and extension components, fix the panels and components together in each pre-drilled hole along the sides of each adjoining panel with 35mm M12 Bolts, nuts and washers.



# Frame Installation

## Columns and Brackets

- Refer to the supplied installation sequence plan provided by your BuiltQuik consultant.
- Identify each column and bracket by referring to the labelling/coding system.
- Attach each corresponding bracket, with 45 mm M16 bolts, nuts and washers to the columns matching up the colour coded arrows that point up for correct orientation.
- Attach each corresponding column, with 45 mm M16 bolts, nuts and washers to the base panels matching up the colour coded arrows that point up for correct orientation.



## Beams and Rafters

- Refer to the supplied installation sequence plan provided by your BuiltQuik consultant.
- Identify each beam and rafter by referring to the labelling/coding system.
- Lift each component via HIAB/mobile crane into position, aligned to the corresponding column brackets.
- Attach each corresponding beam and rafter to the corresponding column brackets, with 45 mm M16 bolts, nuts and washers, matching up the colour coded arrows that point up for correct orientation.



# Installation of Add-on Components

## Eaves

- BuiltQuik's eave system is a bolt-on bracket that can go on any side of the building where an eave is required.
- Eave sizes are
- 450mm, 600mm and 900mm



## Verandas

- Lean-to or veranda extensions are easy additions to the standard BuiltQuik structures.
- veranda add-on's can be 1.8m, 2.4m, and 3.6m
- Typically made from coldform steel purlins and SHS Members



## Studwork Material

- Studwork options can include
- Timber
- Truecore
- Rondo



# Installation of Roofing and Flooring

## Roofing

- Corrogated iron
- Trimdeck
- Bondor
- Alternative Sheet roofing material

All roof purlin centres are a maximum of

- 900 in A1-7 Wind Zones
- 600 in C3-5 Cyclonic regions



## Flooring -

BuiltQuik Base modules are designed to be either

- rased with floor joists
- Concreted into sub-floor

