

# MODERN GREEN HOMES Sanctuary

## 16 MODULAR & PREFAB HOMES

### WIN

A 3kW Flex PowerPlay smart solar home system valued at \$7999

Offer open to Australian residents. Details page 91.

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INSIDE ISSUE 42 Courtyard basics; build without skip bins; PCM cost-benefit; stairs with flair; easy home automation; reinvent your garden

SPECIAL MODULAR & PREFAB HOMES

# Prefab performers

If you still think prefab is code for 'cookie cutter' you'd be wrong. Led by countries such as Sweden where over 80 per cent of houses are now built in factories, there has been a widespread architectural revolution when it comes to prefabricated construction. Now, almost any design is possible.

In this special feature, we speak with 16 companies offering what can be called 'prefabricated', 'factory' or 'off-site' construction services. We have selected those with a focus on the residential sector and which provide options for high building energy star ratings, renewable materials and cost-effective production. Their approaches fall into two main construction categories – modular and panelised – but within these is a huge range of different products on offer.

Since *Sanctuary* last looked at this sector in issue 31, modular construction remains the predominant approach. The change has been in the number of companies offering panelised systems which, on our count, has doubled in three years.

Considered the 'European' approach, many are airtight, interlocking systems that can achieve passivhaus standard. The panels range from structural insulated panels (SIPs) using high-density foam insulation, to timber wall panels filled with glasswool and many other combinations.

Efficiencies of prefab/off-site construction can be brought to any design, though it helps if the design is done with the capabilities of the construction method in mind. 'De-risking' the building process by disclosing costs and timeframes to clients up front is also a feature of this industry.

Some prefab companies now offer partnerships with recommended architects and local trades, but a surprising number are architecturally driven and have full design/build teams in-house. Melbourne appears to be the hotbed of action when it comes to innovating with prefabrication, but the rest of Australia (and New Zealand) has growing businesses too – although with this building method geared for transportation, location is little barrier.

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SPECIAL MODULAR & PREFAB HOMES



## MODE Homes

with Matthew Dynon Architect

Established by architect Matthew Dynon in 2014, MODE builds its homes at a factory in Blacktown, Sydney. Its current capacity is up to 10 unique projects a year.

MODE uses a patented folding assembly system so homes are largely constructed in the factory, folded down for cost-effective transport and then folded back out when they reach site. The system was developed to reduce the prohibitive delivery costs associated with conventional modular construction.

Double glazing is standard in the homes MODE builds and there is a high level of insulation in walls, roofs and floors, considered orientation and sun protection. Waste is reduced on site and in the factory. Products are selected based on sustainability credentials.

**BUILDING TYPE:**  
Modular construction, folding assembly system

**PROJECT NAME:**  
Modular home addition

**PROJECT LOCATION:**  
West Ryde, NSW

**SIZE:**  
100 m<sup>2</sup> of living space added to existing residence

**MATERIALS:**  
Steel frame, Weathertex cladding, extra height double glazing, feature spotted gum hardwood cladding, spotted gum decking, powder-coated aluminium sun shading

**COST PER SQUARE METRE:**  
Complete module \$2500; full project \$2850

**BUILDING ENERGY STAR RATING:**  
7 Star

**TIME TO LOCKUP:**  
14 weeks, five on site.

**PHOTOGRAPHY:**  
David Curzon, Matthew Dynon