

# M-Lock® Bridge System COMPLETE, COST-EFFECTIVE BRIDGE SYSTEM



**CIVILMART** 



### M-LOCK® Bridge System

## **Complete Bridge System**

#### Cost Effective Bridge Solution

The Civilmart M-Lock® Bridge System provides a fast, simple means of bridging small to medium spans using precast, reinforced concrete components.

The system is designed for single or multispan bridges with span lengths between 7 and 15 metres. Ideal applications include rural road bridges, sub-division bridges, pedestrian bridges and utility bridges.

The M-Lock® Bridge System provides an economical and effective replacement for ageing timber bridges and combines benefits of durability and versatility with short construction times

#### Cost Effective Bridge Solution

- Rural road bridges
- Sub-division bridges
- Pedestrian bridges
- Utility bridges

#### Modular Components

#### **DECK**

Deck planks are 1200mm wide inverted Usections with transverse end diaphragms.

They are available in the following lengths: 7m; 8m; 9m; 10m; 11m; 12m; 15m

Planks for skewed bridges (15° and 30°) are also available.

#### **Headstocks**

Precast headstocks complete with cross-fall are manufactured in multiples of 1200mm to suit standard lane widths. The headstock design accommodates either driven or rocksocketed piles.

#### <u>Piles</u>

The system is designed to incorporate a number of different piling products, principally Civilmart Duraspun® Hollow Precast Piles, square RC piles or steel UC and tubular piles.





#### **High Quality Precast Concrete**

All components are manufactured under factory controlled conditions in purpose-made moulds. This reduces the risk involved in transporting premixed concrete over long distances. Virtually no on-site wet mix is required apart from a minimal amount of grout.

#### **Durable Structure**

More durable than composite bridge systems such as timber/concrete. Precast concrete also increases durability because of the strength of the highly compacted concrete used.

#### Purpose Designed Product

All precast components have been designed for SM1600 live loading in accordance with the relevant structural requirements of Australian Standard Codes and accepted engineering standards and principles.

#### Simple Construction

After the piles are installed, the precast concrete headstock beams and planks are bolted into place. For high traffic volume bridges, transverse post-tensioning can be used in place of plank bolts. Accessories include steel guardrail or precast barriers, precast end protection beams or approach slabs and wing walls.

#### No Additional Surfacing Required

The system is designed to eliminate the need for in-situ toppings or wear surfaces. This speeds construction and reduces long-term maintenance costs.

#### Minimal Impact On Waterways

For environmentally sensitive areas, construction can proceed by reaching out from waterway banks or off a previously constructed span. No need to build coffer dams or interfere with the waterway.

#### **Reduced Construction Time**

Using a Civilmart M-Lock® Bridge results in a much reduced construction period compared to conventional bridges and other bridging systems. A crew of two or three can construct a bridge at the rate of one span per week. Disruption to the community and road users is minimised.



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