Leading the Future in Modular Bridging

A lighter way of looking at bridges...
Introducing the Mabey Pedesta™ Footbridge – a lightweight modular footbridge system from Mabey in a choice of panel finishes, including illuminated.
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Introducing the NEW Mabey Pedesta™ Footbridge

The Pedesta™ is a revolutionary lightweight Glass Fibre Reinforced Plastic (GFRP) post-tensioned, modular footbridge system, suitable for rail, road and river spans. It is especially well-suited to sites with difficult or limited access, or to applications which are subject to harsh environmental conditions, where it provides safe passage for pedestrians.

Designed by Arup, the lightweight, modular footbridge system uses an established composite material – glass fibre reinforced plastic – which makes the bridge 70% lighter than its conventional steel counterpart. It is pre-engineered, modular, and fully customisable in its form, material, colour and finish, making it a game-changing development, which transforms 21st century footbridge manufacture, installation and maintenance.

Outline designs are available for a variety of spans, widths and parapet heights. Applications include footbridge crossings over roads, rivers and rail, as well as cycleway crossings and architectural walkways. An over-rail version is also available featuring UK rail parapet heights and a geometry to suit standard rail footbridge furniture. Additionally, the product can be configured to enable easy integration of services, with options for lighting and advertising.

Key features and benefits

- **Lightweight**
  Over 70% lighter than a conventional steel span and therefore easier to install – especially where access is limited or difficult.
- **Flexible in its design**
  Each module is 1m long, and the system allows spans of up to 30m; geometry can be designed to suit any application.
- **Simple to build**
  Modules only require a pallet truck or forklift to move; whole bridge only needs a small crane; connections on site are simple and do not require adhesive.
- **Simple to maintain**
  Access for maintenance and inspection is provided from the bridge deck and all public facing components are non-structural.
- **Resilient**
  Each module has a high performance coating designed to provide additional resistance to fire, graffiti, vandalism and UV.
- **Cost-effective**
  Capital costs are comparable with steel footbridges; operating costs over its 120-year design life are lower.

- **Customisable**
  All non-structural parts can be fully customised in material, colour and finish; lighting, drainage and routing for minor services can be fully integrated.
- **Future-proofed**
  Each post-tensioning bar can be wirelessly monitored throughout its life with any change in the structural performance triggering automatic notifications if required.
- **Easy to procure**
  Manufacturing under license from Arup enables competitive tendering to get best value.
- **Beneficial to society**
  Suitability for remote locations and the potential for local manufacture to introduce skills and investment into local areas makes it an ideal solution for developing countries.

Based on a concept by ARUP

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