

goliath

waagner biro
bridge systems



For
Eurocode
and high
fatigue
loads

WBG

—WAAGNER-BIRO BEAM BRIDGE GOLIATH—

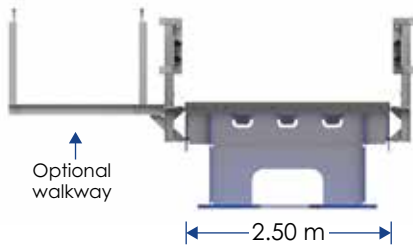
Modular design • Fast delivery • Rapid assembly • For hire or sale

— WAAGNER-BIRO BEAM BRIDGE GOLIATH WBG —

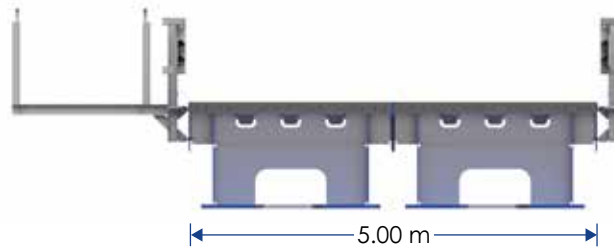
— VARIABLE DECK WIDTHS

Different deck widths (single and multi-lane) can be achieved by laterally coupling the beam bridge modules. They are available in standard widths of 2.50 m. Here are some examples:

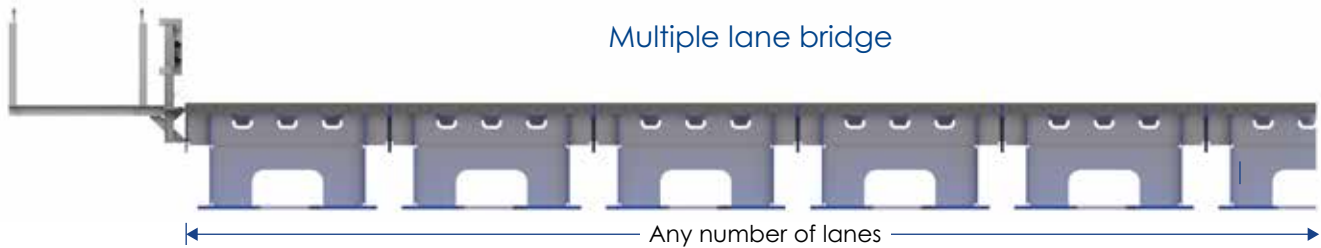
Single lane bridge



Double lane bridge

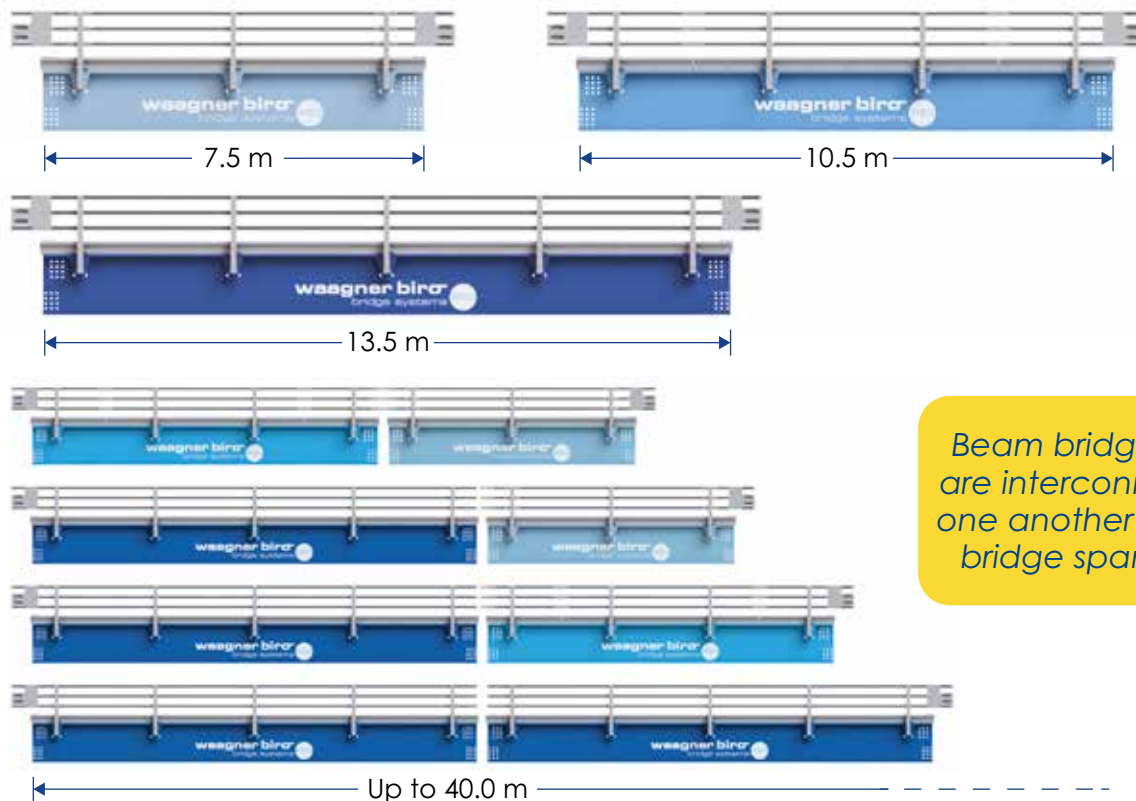


Multiple lane bridge



— CLEAR SPANS OF UP TO 40 M

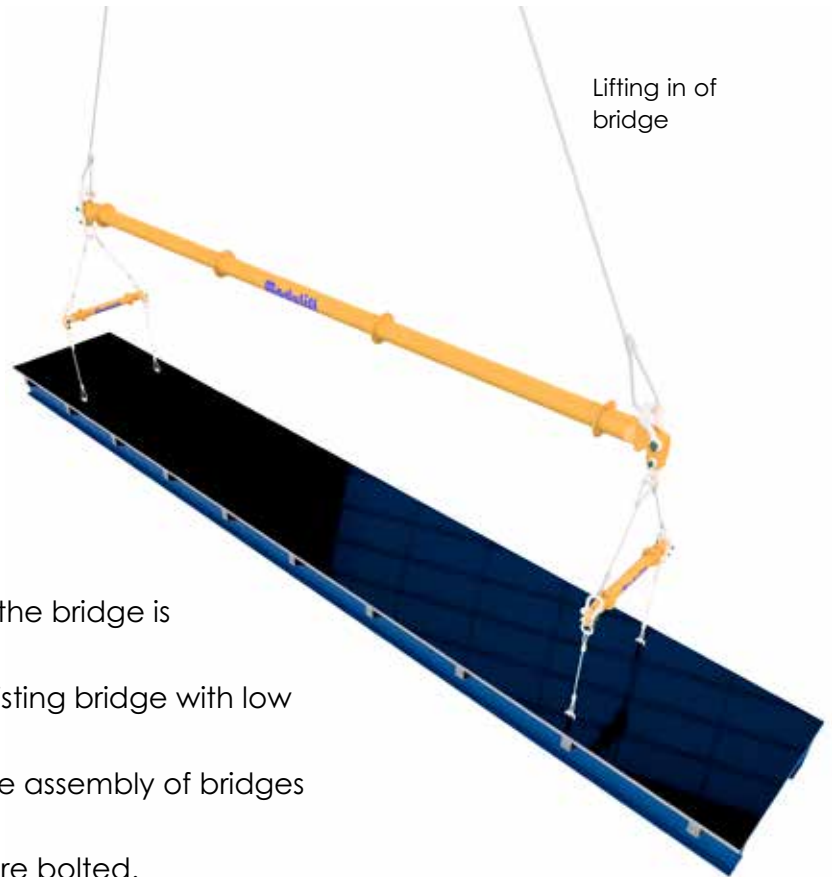
Module lengths of 7.5m, 10.5m and 13.5m can be combined with each other as required.



Beam bridge elements are interconnected with one another to form any bridge span required.

— SIMPLE AND QUICK TO BUILD

- ✓ Beam bridge modules are equipped with integrated lifting lugs.
- ✓ The WBG is (fully or partly) pre-assembled at the factory and delivered to the site on flatbed trucks. It is lifted or launched into position and ready for immediate use. Optionally, Waagner-Biro is pleased to offer assembly and disassembly of the bridge.
- ✓ **Optimal solution for temporary use:** Multiple disassembly and reassembly of the bridge is easily possible.
- ✓ The WBG is ideal for over-bridging an existing bridge with low load-bearing capacity.
- ✓ The low construction height allows for the assembly of bridges without any costly ramping.
- ✓ All connections of the bridge structure are bolted.
- ✓ No welding is necessary on the construction site.



Lifting in of bridge



Beam bridge with launching nose

— HIGH QUALITY STANDARD

- ✓ Designed for high traffic loads and fatigue stresses according to Eurocode.
- ✓ Use of high-strength steel grades.
- ✓ CE certified design and execution according to EN 1990-2 EXC 3.



ONE SYSTEM, MANY POSSIBILITIES!

The Waagner-Biro Beam Bridge WBG is a modular steel bridge system with single spans of up to 40 m (with steel deck), designed and developed for heavy traffic loads (Eurocode) and a high number of load cycles.

For both temporary and permanent use.

— SPECIFICATIONS FOR THE WAAGNER-BIRO BEAM BRIDGE WBG

Type of construction	Modular construction with few individual components. The WBG consists of prefabricated modules which are interconnected longitudinally and transversely to achieve the required bridge length and width.
Standard module lengths	7.50 m, 10.50 m, 13.50 m
Standard module widths	2.50 m
Maximum clear span	40 m (with steel deck)
Multi-span bridges	Designed as continuous girders on intermediate supports.
System height incl. bearing	approx. 1.30m
Load standard	Eurocode and high fatigue loads
Bridge deck and deck surface	Closed deck with orthotropic steel deck plate. Factory applied anti-slip surface made of epoxy resin with grit. All beam bridge elements are provided with lifting lugs.
Guard rails, parapets	Guard rails comply with various restraint classes according to EN 1317. End pieces allow the transition to a landside guard rail. Stable curb elements on both sides of the carriageway.
Walkway (outside the clearance gauge)	Cantilevered construction; bolted to the guardrail construction by means of head plates. Walkway widths: 1.0 to 2.0 m. Railing height: up to 1.30 m.
Bearings	Fixed and sliding bearings made of steel.
Manufacturing	Execution according to EN 1090-2 EXC 3.
Bolted connections	Beam bridge elements are bolted together by means of butt strap joints and pre-stressed high-strength friction grip (HSFG) bolted connections.
Corrosion protection	Main structure, guard rails, parapets: Hot-dip galvanised in accordance with EN ISO 1461 or protected with three layers of coating. Bridge deck: Protected with three layers of coating on top of one another, all in accordance with current standards (C5 corrosion protection class - highest protection class).
Assembly	Lifting with a mobile crane or by incremental launching.

Everything from one source: The WBG One-Stop-Solution!

Our experienced team provides comprehensive technical support, ranging from design, static calculation and assembly to a wide array of after sales services.

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