GENERAL DYNAMICS
European Land Systems

Bridge Systems

Improved Ribbon Bridge

IRB

EX Anakonda 2016

IRB • Improved Ribbon Bridge

IRB Ferry Operation

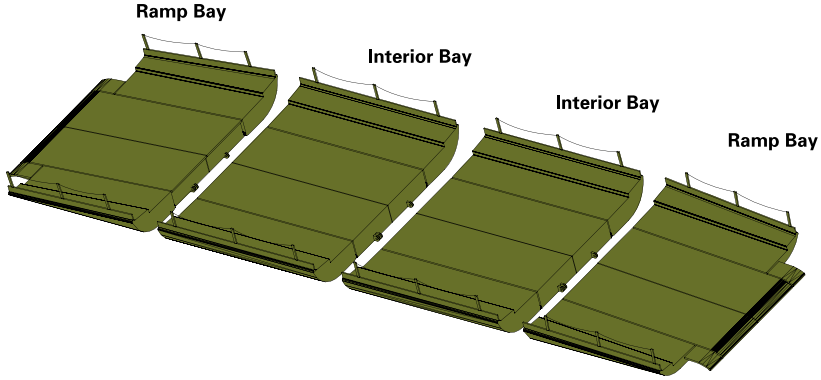
IRB Bridge Operation (523 m)

The IRB provides wet-gap crossing capability for today's highly mobile combat forces. It is designed to carry heavy combat vehicles and trucks up to MLC 80(T) / 96(W) as a floating bridge or multi-bay ferry. Transportable by fixed or rotary wing aircrafts, on trucks and on railway cars the IRB is an essential part of modern combat engineer equipment. The IRB has already proven its superior performance and reliability under various climate conditions, exercises and combat operations.

IRB Performance

- Construction of a 100 m (328 ft) bridge in approx. 30 minutes
- Maximum single load of MLC 80(T) / 96(W) for bridges and ferries
- Operable in water currents up to 3.05 mps (10 fps)
- Improved Ramp Bay reaching bank heights up to 2.0 m (6 ft 7")

Configuration of an IRB 4-Bay Ferry



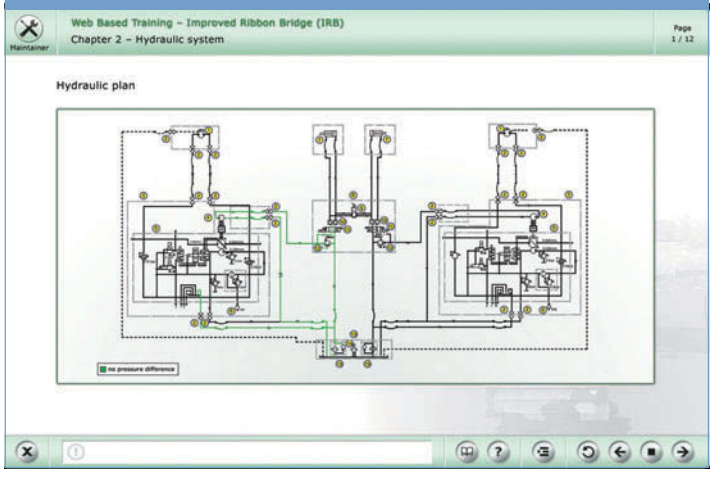
IRB Operations and Training

Launching Process

Retrieving Process

Computer-Based Training System

Computer-Based Maintainer Training



IRB Main Features

Interoperability

Fully interoperable with the U.S. Standard Ribbon Bridge (SRB) and the Folding Float Bridge (FSB)

Single Lane Traffic

MLC 80(T) / 96(W) usable roadway width of 4.5 m (14 ft 9") for single lane traffic

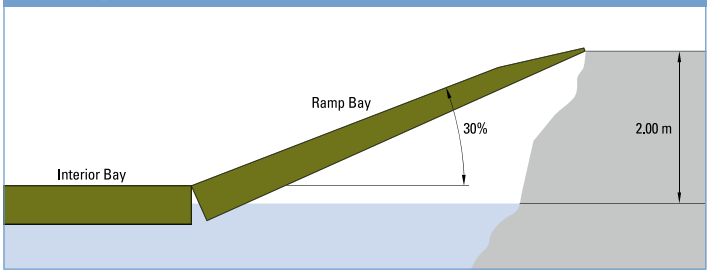
Crossing Capability HET

Crossing capability for loaded Heavy Equipment Transporter (HET / MLC 96)

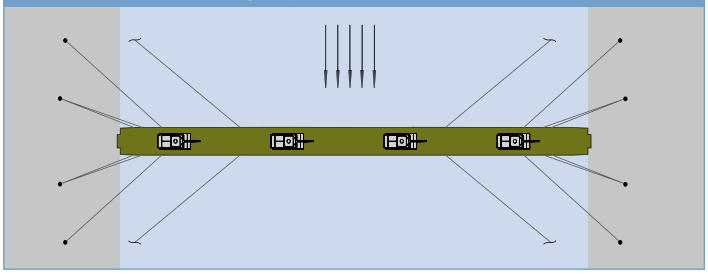
Two Lane Traffic

MLC 20(T) / 14(W) usable roadway width of 6.75 m (22 ft 2") for two lane traffic

Ramp Inclination



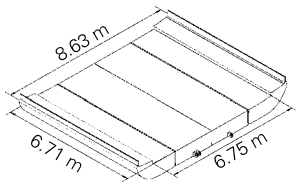
Land Anchoring System



IRB Technical Data

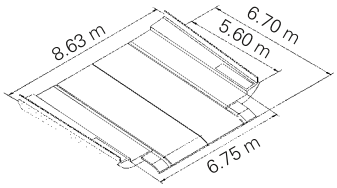
Interior Bay

Total length / Usable length	6.92 m / 6.71 m	22 ft 8" / 22 ft 0"
Width folded / Width unfolded	3.30 m / 8.63 m	10 ft 11" / 28 ft 4"
Height folded / Height unfolded	2.35 m / 1.30 m	7 ft 9" / 4 ft 3"
Total weight	6,350 kg	14,000 lbs



Ramp Bay

Total length / Usable length	6.92 m / 6.70 m	22 ft 8" / 22 ft 0"
Width folded / Width unfolded	3.19 m / 8.63 m	10 ft 6" / 28 ft 4"
Height folded / Height unfolded	2.35 m / 1.30 m	7 ft 9" / 4 ft 3"
Total weight	6,350 kg	14,000 lbs



Ferry Operation

Payload (single load) up to	MLC 80 (Tracked) / MLC 96 (Wheeled)	
Usable deck width: - MLC 80(T) / 96(W) single lane loading	4.50 m	14 ft 9"
- MLC 20(T) / 14(W) two lane loading	6.75 m	22 ft 2"
E.g. 5-bay ferry combination require	3 x Interior Bays and 2 x Ramp Bays	
Construction time	~ 15 min.	

Bridge Operation

Payload (single load) up to	MLC 80 (Tracked) / MLC 96 (Wheeled)	
Usable deck width: - MLC 80(T) / 96(W) single lane traffic	4.50 m	14 ft 9"
- MLC 20(T) / 14(W) two lane traffic	6.75 m	22 ft 2"
E.g. 100 m bridge require	13 x Interior Bays and 2 x Ramp Bays	
Construction time	~ 30 min.	

Subject to technical alterations. Specific requests by the customer will be implemented if possible!

The IRB is fully interoperable with the SRB and FSB in terms of coupling, means of transport, bridge erection boats and operational requirements.

BEB • Bridge Erection Boat (Birdon)

The Bridge Erection Boat (BEB) from Birdon was selected by the U.S. Army and provides the user with a high performance multi-purpose boat that is optimized for shallow water operations. All functions of the BEB are performed by no more than a two-person crew.

The BEB is an aluminum-hulled boat with two diesel engines. It runs on ultra-low sulfur diesel, can be outfitted with an optional feature for burning JP-8 fuel and uses two water jets for propulsion. It can reach speeds in excess of 28 knots and has 27 kN of bollard pull at static speed. The BEBs unique and flexible design means it be can integrated with most customer specific transport systems.

In its primary mission mode, the BEB provides propulsion, thrust, and stabilization to support worldwide tactical bridging and rafting IRB operations. The BEB is also specifically designed to operate in high particulate matter environments to include silt in fresh, brackish, and seawater. The mission capabilities include diver support, personnel movements, recon, and serves as a water safety craft.

For additional protection the BEB can be equipped with an add-on armour system.

BEB (Birdon) Technical Data	
Thrust	27 kN
Speed	>28 knots
Payload (max)	900 kg
Fuel Capacity	2 x 250 L

BEB pushing an IRB Bay

The Transatlantic Partner for Land Defense in Europe

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Bridge Systems IRB