

Bridge Systems

**Improved  
Ribbon  
Bridge**

**IRB**





EX Anakonda 2016

## IRB • Improved Ribbon Bridge

IRB Ferry Operation



IRB Bridge Operation (523 m)

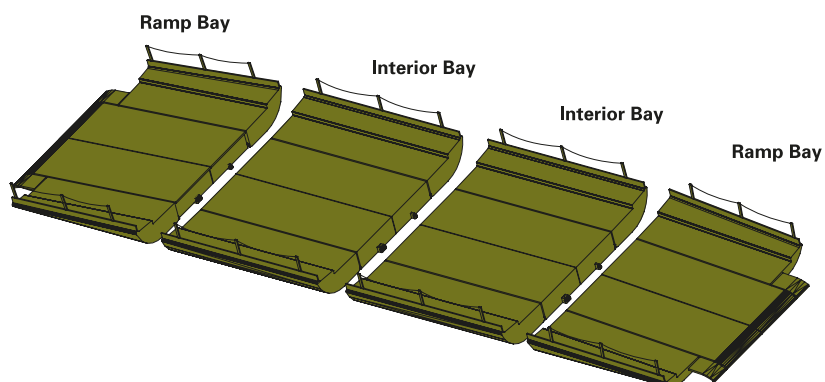


The IRB provides wet-gap crossing capability for today's highly mobile combat forces. It is designed to carry heavy combat vehicles and trucks as a floating bridge or multi-bay ferry. Transportable by fixed or rotary wing aircrafts, on trucks and on railway cars the IRB is an essential part of modern 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
- Carries all NATO vehicles in bridge and ferry mode
- 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



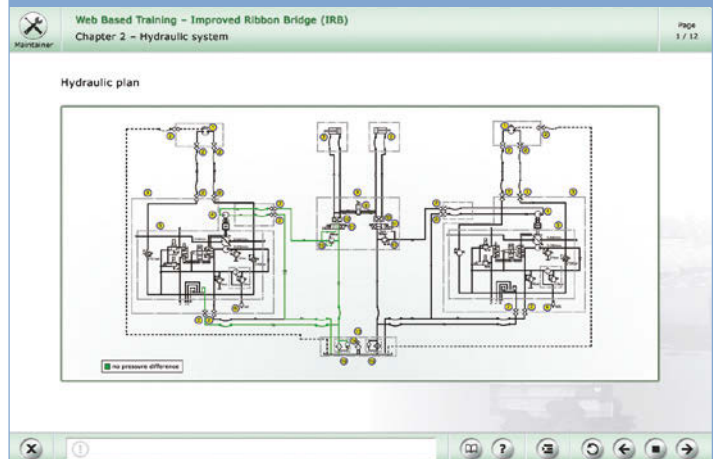
Retrieving Process



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

Usable roadway width for main battle tanks of 4.5 m (14 ft 9") for single lane traffic

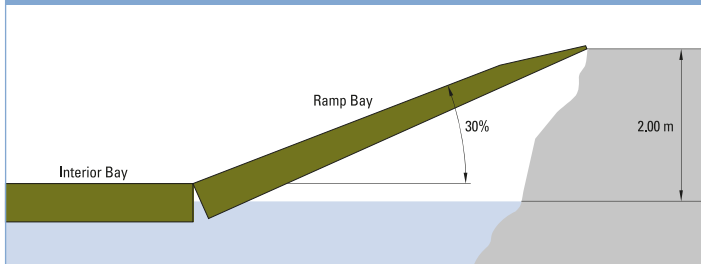
## Crossing Capability HET

Crossing capability for loaded Heavy Equipment Transporter

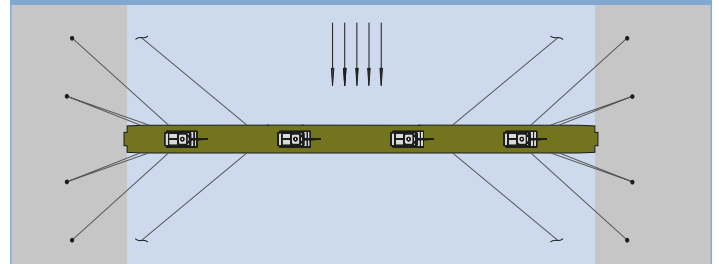
## Two Lane Traffic

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

## Ramp Inclination



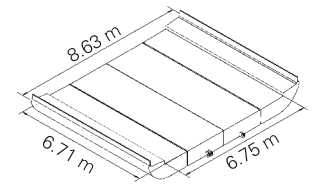
## Land Anchoring System



# IRB Technical Data

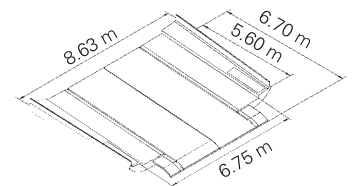
## Interior Bay

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)	carries all NATO vehicles	
Usable deck width: - single lane loading	4.50 m	14 ft 9"
- two lane loading	6.75 m	22 ft 2"
E.g. 5-bay ferry combination require Construction time	3 x Interior Bays and 2 x Ramp Bays ~ 15 min.	

## Bridge Operation

Payload (single load)	carries all NATO vehicles	
Usable deck width: - single lane loading	4.50 m	14 ft 9"
- two lane loading	6.75 m	22 ft 2"
E.g. 100 m bridge require Construction time	13 x Interior Bays and 2 x Ramp Bays ~ 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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