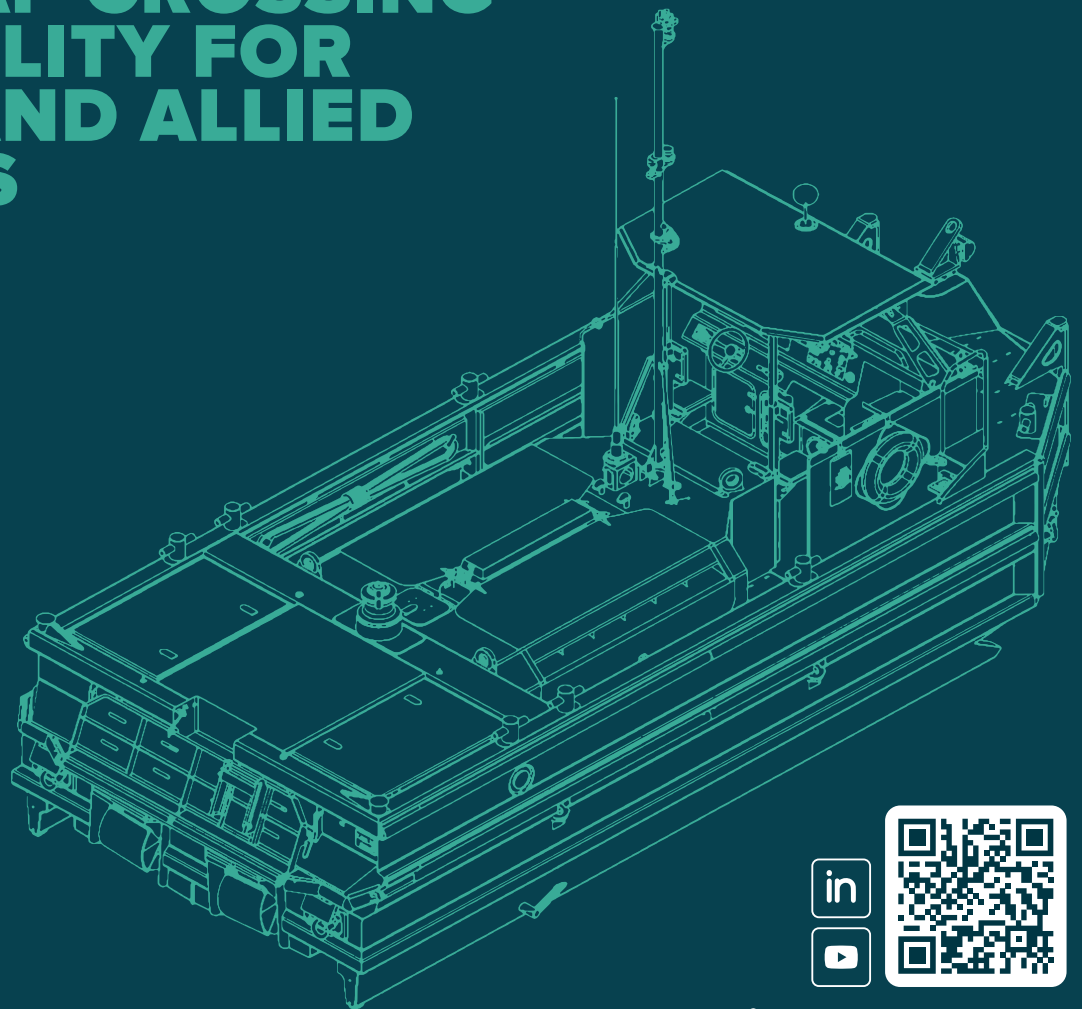




Make it
HAPPEN

COMPLETE WET GAP CROSSING SOLUTION

INTEGRATED WIDE
WET GAP CROSSING
CAPABILITY FOR
NATO AND ALLIED
FORCES



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SYSTEM OVERVIEW



Birdon delivers a Complete Wet Gap Crossing Solution to NATO and allied forces across the world.

In partnership with General Dynamics European Land Systems – Bridge Systems (GDELS-BS), the system comprises of the Improved Ribbon Bridge (IRB) from GDELS-BS, the Bridge Erection Boat (BEB) and the Bridge Adaptor Pallet (BAP) from Birdon.

The IRB is the global standard for wet gap crossing operations, as the only combat proven, in-service and in- production pontoon bridge system within NATO, the IRB sets the standards for capability, reliability and maintainability.

The same applies for the BEB, initially developed for the U.S. Army, the BEB is again the only combat proven and in- production bridging vessel within NATO, the BEB provides unparalleled capability for bridging and rafting operations in the most demanding environments.

The most recent addition to the system is the Birdon BAP, developed to meet the needs of the modern combat engineer the BAP is a complete ground up development for the IRB and BEB, taking into account years of operational experience to deliver a transportation system that meeting all armed forces across NATO and our allies.

Quick Facts

FLEET	450+ BEBs in operation worldwide
DEPLOYMENT	Global
SYSTEM	IRB + BEB + BAP, Fully Interoperable with M3 Amphibious Vehicle, SRB and FSB from GDELS
DESIGN LIFE	20+ years



SYSTEM ARCHITECTURE



The Birdon Wide Wet Gap Crossing System is a modular, deployable capability designed for rapid assembly and sustained operation across riverine and littoral environments. It integrates:



Bridge Erection Boat (BEB)

High thrust operation in high particulate environments, integration with transport systems.



Improved Ribbon Bridging (IRB)

Critical bridging component for rapid water crossing.



Bridge Adapter Pallet (BAP)

Streamlines the deployment and transport of bridging systems

OPERATIONAL CAPABILITY

The integrated system enables:

- Rapid establishment of wet gap crossings
- Transport of heavy vehicles and armoured platforms
- Bridge assembly in dynamic river conditions
- Scalable deployment across multiple crossing points
- BEB reduces the number of vessels required compared to legacy systems, while improving control, safety, and deployment speed.
- BAP integration enables deployment using a wide range of military and commercial transport vehicles, reducing reliance on specialised fleets.



KEY SYSTEM ADVANTAGES



Proven system integration

Delivered in partnership with leading defence contractors, combining Birdon's BEB platform with complete bridging system integration.



Operational performance

High thrust propulsion enabling control in fast-flowing, debris-heavy environments and improved stability under load.



Reduced manpower

Lower crew requirements relative to legacy bridging platforms, reducing personnel exposure during assembly and operation.



Deployment efficiency

Rapid launch, assembly, and recovery via BAP-enabled transport systems, enabling faster deployment cycles.



Safety and control

Improved operator safety, vessel control, and system stability during bridge assembly and ferry operations.



Interoperability

Aligned with NATO bridging standards and interoperable across allied force structures.



Modernisation of legacy capability

Replaces ageing bridging systems with enhanced performance, reliability, and operational efficiency.



Rapid production

Systems deployable in as little as four months, supporting urgent replacement of ageing bridging capability.



Scalability

Applicable across multiple operational scenarios, from tactical crossings to sustained bridging operations.



SYSTEM PERFORMANCE



AUTONOMY & CONTROL

- Follow-Me Mode multi-vessel coordinated operation
- Dynamic Positioning (DP) capability
- Semi-autonomous operational modes



KEY FEATURES

- High thrust and manoeuvrability in fast-flowing and debris-laden waterways
- All-weather enclosed cabin with optional ballistic protection
- NATO interoperability across bridging systems and transport platforms
- Integration with BAP hooklift system for rapid deployment and recovery
- Low maintenance design engineered for continuous operation in harsh environments
- Proven subsystem integration within IRB-based bridging architectures



MILITARY LOAD CLASSIFICATION (MLC)

Configured to support NATO bridging requirements, enabling transport of heavy vehicles and armoured platforms within IRB ferry and bridge configurations.

BEB Technical Specifications

PROPULSION	Twin NAMJet Mass Flow Waterjets
SPEED	28+ knots
CREW	Two Person (Driver + Rigger), capable of fully unmanned operation with advance iNAV controls
CONTROL	NAMJet iNAV control system, electric-hydraulic control with integrated advanced capability such as joystick, station keeping and remote operations
DRAFT	Shallow – riverine and littoral

IRB Technical Specifications

MLC	Supports ALL NATO heavy battle tanks and equipment
BRIDGE LENGTH	Unlimited
INTEROPERABILITY	Only system fully interoperable with M3 Amphibious Vehicle and legacy bridge systems of SRB and FSB
PROPULSION	Birdon Bridge Erection Boat
DEPLOYMENT SPEED	Fast launch and fully operationally ready in less than 1 minute

BAP Technical Specifications

HEIGHT	Low profile design to meet NATO road transportation requirements with Military Tactical Truck
WINCH	Hydraulic with anti-jam spooling system
HOOGLIFT	Integrated hooklift to allow operation on various vehicles without hooklift for example flatbed truck and standalone trailers
LOCKING MECHANISM	ISO corner locks and hooklift locks
LAUNCHING	Fast launch hydraulic system for IRB and quick release for BEB

Birdon[®]

We
**DESIGN
BUILD
OPERATE
MAINTAIN
REMEDiate
DECOMMISSION**

I can tell you for the past several years I have continually told people that the absolute best acquisition that the Engineer Regiment has had since I have been here (12 years) has been the Bridge Erection Boat.

“

By every metric; cost, schedule, performance, material release, manuals, fielding, quality,... I always hold you guys up as an example of what good looks like.

**- Jim Rowan, Deputy Commandant,
U.S. Army Engineer School**

DEFENCE

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GLOBAL DEPLOYMENT PROVEN IN SERVICE

The BEB, IRB and BAP are deployed across multiple allied forces and forms the key capability for wet gap crossing operations.

