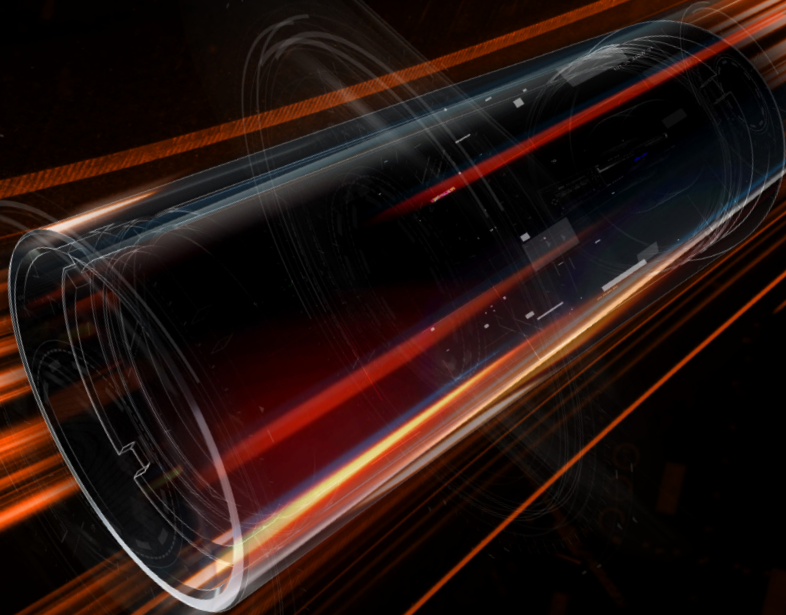


BlackThornTM

Any mission. Any platform.



A family of mission-configurable warheads
for missiles and autonomous systems

BAE SYSTEMS



BlackThorn™ is a family of mission-configurable warheads, built around the mission rather than the platform. From a common architecture, customers can match the right effect to each target, integrating the capability across missiles, autonomous systems, one-way effectors, counter-uncrewed aerial systems (C-UAS) and uncrewed ground vehicles. Common interfaces allow for rapid integration, and the architecture can evolve as threats and platforms change.

Modern warfare is changing

Technology is transforming the character of warfare. Autonomous systems, drones and one-way effectors are becoming increasingly central to military operations. As these capabilities grow in scale and sophistication, military forces require payload solutions that can evolve just as rapidly.

Success on tomorrow's battlefield will not be determined solely by the platform. It will belong to those who can innovate rapidly, adapt continuously and deliver operational effect at scale.

Across the defence sector, advances in autonomy, software, sensors, command and control, and platform design are transforming what autonomous systems can achieve.

The challenge

While autonomy, sensors, software and platform design have advanced significantly, payloads have often struggled to keep pace.

The operational environment now demands effects that:

- match the mission, not just the target
- allow for rapid integration to match the pace of warfare
- evolve as threats and platforms change
- can be produced and adapted at scale
- work across domains and deployment models
- are assured and safe from the outset

The future battlespace requires payloads specifically designed for autonomous systems—capable of delivering operational effect while evolving alongside the platforms they support.

BlackThorn™ is the answer

A multi-role utility warhead family for missiles and autonomous systems

BlackThorn combines blast, fragmentation and anti-armour effects within a common modular architecture, enabling a single platform to engage a broad range of target sets and operational requirements.

Built for the era of autonomous mass

The future battlefield will be characterised by larger numbers of autonomous platforms operating alongside traditional force structures.

BlackThorn has been developed to provide the affordable, scalable and lethal effects required to enable this new generation of hybrid forces.

Multi-role effects

Blast, fragmentation, anti-armour and multi-purpose effects from a common warhead family.

Modular and scalable

Flexible architecture supporting multiple platforms and mission requirements.



Rapid integration

Platform-agnostic design reduces development timelines and integration effort.

Assured and safe

Working with partner entities to deliver electronic safety and arming capabilities aligned with NATO requirements.

Affordable mass. Adaptive effects. Increased lethality.

One warhead. Multiple effects.

Blast

Scalable blast effects against structures, equipment and area targets.

Fragmentation

Optimised fragmentation effects against personnel and unprotected targets.

Multi-Purpose

Designed to combine effects of both anti-armour and fragmentation effect to provide broader defeat capabilities.

Anti-Armour

Focused defeat capability against protected and armoured targets.

Scalable effects across multiple platform classes

BlackThorn is designed as a scalable family of utility warheads, enabling a common architecture to support a broad range of autonomous platforms and mission requirements.

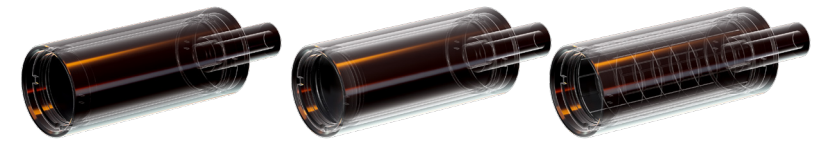
BlackThorn 40

40mm - Lightweight capability

Designed for lower-weight autonomous systems requiring agile, mission-ready effects.

Potential applications include:

- Ground Based Air Defence (GBAD) effectors
- Mini missiles
- Small Uncrewed Aerial Vehicles (UAV)
- Strike drones
- Uncrewed Ground Vehicles (UGV)



Compact. Agile. Mission ready.

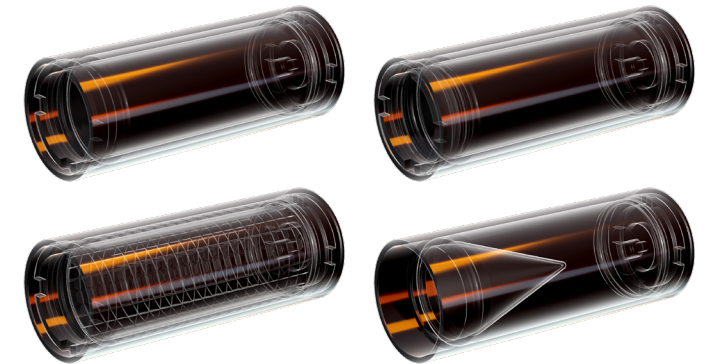
BlackThorn 70

70mm - Tactical multi-role capability

Optimised for platforms requiring increased effect while retaining integration flexibility.

Potential applications include:

- Fast jets
- Attack helicopters
- Ground launchers
- Uncrewed Aerial Vehicles (UAV)
- Uncrewed Ground Vehicles (UGV)
- Strike drones



Multi-role effects across multiple domains.

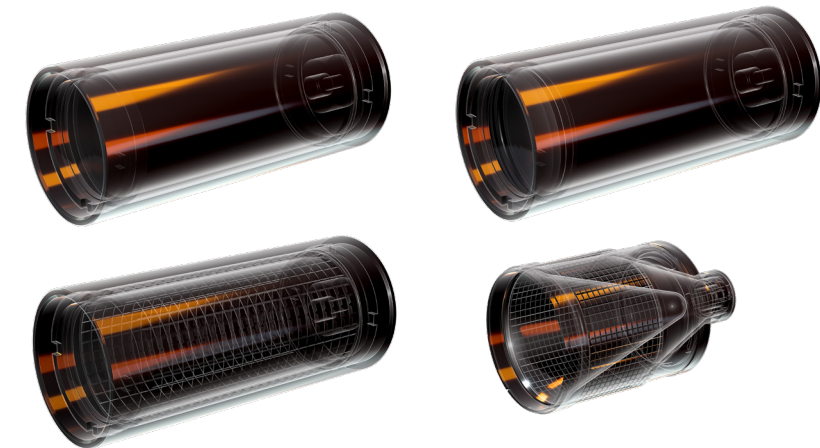
BlackThorn 120

120mm - Enhanced operational effect

Designed for larger autonomous platforms delivering increased lethality against demanding target sets.

Potential applications include:

- One way effectors
- Large Uncrewed Aerial Vehicles (UAV)
- Uncrewed Ground Vehicles (UGV)
- Uncrewed Vehicles (UXV)
- Maritime Autonomous Systems (MAS)
- Strike drones



Maximum effect. Future ready.

Common architecture. Multiple calibres. Multiple platforms.

Designed for rapid integration

One architecture. Any mission. Any platform.

BlackThorn has been developed from the outset to enable seamless integration across a broad range of autonomous systems.

Designed with a platform-agnostic architecture, BlackThorn reduces development timelines, lowers integration burden and accelerates operational deployment.

Supported platform categories include:

Air

- Loitering munitions
- Fixed-Wing Uncrewed Air Vehicles (UAV)
- Vertical Take-Off and Landing (VTOL) systems
- Strike drones

Land

- Uncrewed Ground Vehicles (UGV)
- Ground-launched effectors
- Counter-UAS systems

Maritime

- Uncrewed Surface Vessel (USV)
- Maritime Autonomous Systems (MAS)

Future Platforms

- Emerging autonomous systems
- Hybrid force concepts
- Next-generation effectors

Core capabilities

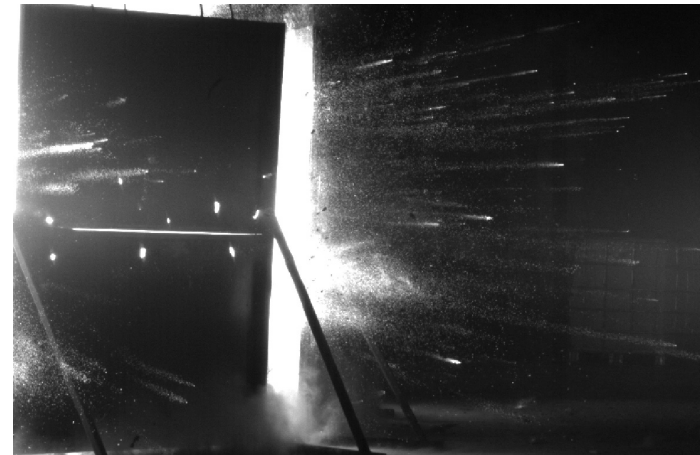
Multi-role effects. Mission ready.

- Configurable variants deliver blast, fragmentation, anti-armour and multi-purpose effects from a common architecture.
- Modular and scalable by design.
- Flexible capability growth across multiple mission requirements and platform classes.
- Rapid, platform-agnostic integration.
- Designed to reduce complexity, development effort and time-to-field.
- Assured and safe.

Designed digitally. Proven physically

BlackThorn has been developed using advanced modelling, simulation and digital engineering techniques before being validated through an extensive testing programme.

This approach accelerates development while delivering confidence in operational performance.



Why BlackThorn?

Reduced reliance on multiple specialist payloads

- A platform-agnostic architecture.

Affordable mass

- Supports scalable, high-volume capability generation for autonomous and hybrid force structures.

Increased lethality

- Blast, fragmentation, anti-armour and behind-armour effects from a common warhead family.

Reduced integration

- Platform-agnostic architecture designed for rapid integration.

Reduced logistics

- Reduce reliance on multiple specialist payloads while simplifying inventory and sustainment.

Future-ready adaptability

- Future-ready architecture designed to evolve alongside emerging technologies and threats.

Backed by BAE Systems

Combining decades of expertise in:

- Warhead design
- Energetic materials
- Fuzing technology
- High-volume munition manufacture
- Digital engineering.

Proven Progress

- Extensive modelling and simulation
- Comprehensive testing programme
- Rapid design iteration
- Selected by an industry partner for integration.



BlackThorn™ delivers adaptive effects for missiles and the autonomous battlespace, through a common architecture built around the mission, ready to integrate quickly and designed to evolve with the platforms and threats it faces.

BlackThorn™ Any mission. Any platform.

BAE SYSTEMS

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