



SAAB

COUNTER MINES WITH CONFIDENCE

DAMDIC MINE
DISPOSAL CHARGE



MASTER MINE DISPOSAL

Danish Mine Disposal Charge (DAMDIC Mk 1) neutralises sea mines through sympathetic detonation. The state-of-the-art, NATO-certified system was designed to meet the Royal Danish Navy's strict safety and operational requirements during countermining operations – a role that no existing charge on the market could fulfil.

DAMDIC is delivered to the mine by a remotely operated vehicle (ROV), keeping personnel out of harm's way. It is then placed in proximity to the mine using a pre-calibrated hydrodynamic glide trajectory.

The explosive element is contained within a glass-fibre reinforced polyester shell, with the charge following a

controlled trajectory once released from the ROV. Four short legs, together with the fins on the aft shield, also prevent DAMDIC from rolling, if released on an uneven seabed.

Big impact, optimal manoeuvrability

DAMDIC is designed to ensure both optimal impact and manoeuvrability. It is large and heavy enough to offer an extremely high destruction probability against any conventional bottom mine type, but light enough to avoid adversely influencing the speed of the ROV. The size of the charge is also no bigger than necessary, minimising the impact on the environment.

Saab provides a complete mine disposal solution – including ROV and mine disposal charge – which benefits from our decades of expertise.



CHARGE

Optimised charge for maximum effect and minimal environmental impact



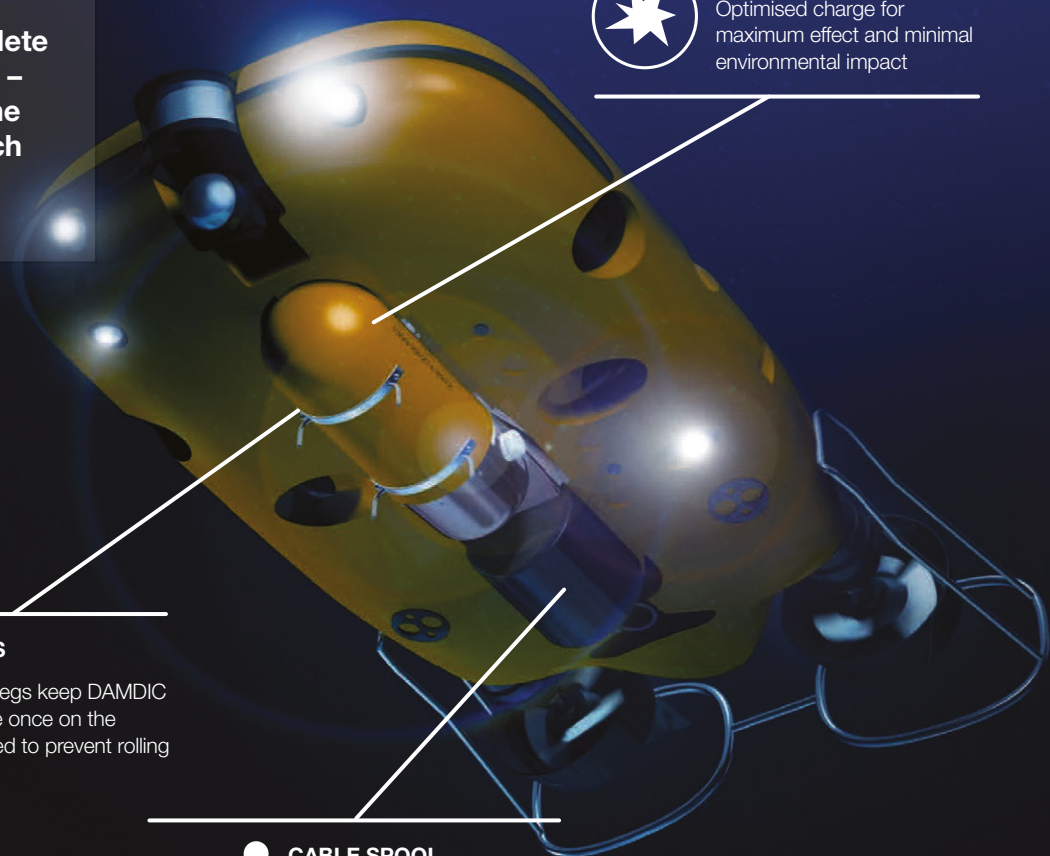
LEGS

Four legs keep DAMDIC stable once on the seabed to prevent rolling



CABLE SPOOL

Connects DAMDIC to the ROV and enables remote detonation from the control ship



SAFETY GUARANTEED

To avoid unexpected activation of the detonator, the mine disposal charge itself does not contain an energy source and its magnetic signature is negligible.

In addition, the arming mechanism is pressure activated, while the arming lock mechanism requires release of the charge from the ROV. While DAMDIC is being transported by an ROV, its safety devices are still in place and secure – it remains unarmed and can be returned to the ship without risk.

DAMDIC only becomes fully armed when it has been released from the ROV and placed on the seabed – and its cable is attached to an energy source after return of the ROV. Even then, at this late stage of operation it remains possible for a mine diver to safely disarm the charge with a special tool, bring the charge to the surface and recover it.

To further enhance DAMDIC's safety and reliability, detonation via cable is preferred to acoustic signals; the latter is considered unreliable in coastal waters due to layers and large variations in salinity through the water column.

Advanced accuracy

A specifically developed, accurate drop-delivery technique allows DAMDIC to be placed right next to the mine. Extensive trials at the Danish Maritime Institute have established a complete set of drop curves for relevant current speeds and heights above the seabed. Software based on these results is integrated into the ROV's TV subsystem and controls an aiming reticule (bomb sight) on the operator's display.

When an ROV fitted with DAMDIC hovers next to a mine, the operator uses video surveillance to select a place to drop the charge. The release command is given remotely from the ship, and, as the charge glides to the target position,

the arming process activates. The ROV then returns to the ship, winding out the cable from the cable spool. Back onboard, the cable is then connected to a DAMDIC Blasting Machine (detonating control unit) to initiate the charge.

A unique solution

DAMDIC can be integrated with a number of ROV types. However, the combination of Double Eagle and DAMDIC is optimised to provide a world-leading and unique solution for mine disposal.

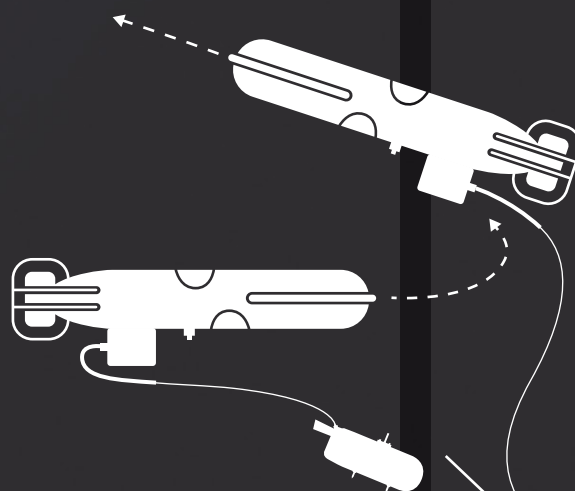
SYSTEM SPECIFICATIONS

WEIGHT	49 kg
WEIGHT SUBMERGED	21 kg
LENGTH	820 mm
DIAMETER	250 mm
MAIN CHARGE	Comp B explosive



DELIVERY

DAMDIC is light enough to be transported to the target area by an ROV



DEPLOYMENT

A ship-activated drop-delivery technique allows DAMDIC to be accurately placed next to the target mine



DETONATION

DAMDIC arms when released and dropped half a meter from the ROV and a water pressure of minimum 6 meters is established. A cable connected to the ROV is taken back to the ship where a blasting machine activates the charge



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SAAB PUSHES BOUNDARIES AND BREAKS CONVENTIONS. OUR **THINKING EDGE** COMBINES **INNOVATION, PRAGMATISM AND COLLABORATION** – RESULTING IN PRODUCTS THAT GIVE YOU A **DISTINCT ADVANTAGE** IN THE UNDERWATER DOMAIN.

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