

## Mobile Bomb Disposal System (MBDS) Scenario Mission

- The MBDS is stored in a rescue station or garage when not in action.
- The detection of a suspicious object generates an alarm to the MBDS-station. Location, description and classification of the object (if possible) is transmitted to MBDS-station and the mission begins.
- The unit is road transported to the operation area where the MBDS is to be deployed.
- The Operators Cabin is manned. The Robot Unit is unloaded from the Trailer. The Gripping Device is attached to the crane.
- The Robotic Unit is remotely controlled by the operators who may be at distances up to 1000 m, and driven into the target area where the suspicious object is located. The object becomes visible through the Vision System and is gripped and secured inside the Gripping Device. The fragment shield and blast mitigation system within the Gripping Device immediately reduces risk to the surrounding area.
- With the suspicious unit secured, the Robotic Unit is driven back to the trailer by remote control.
- At the operation site the Gripping Device with the object is placed inside the Mobile Explosive Containment Vessel (MECV) and released from the crane.
- The MECV is closed, locked and the gas-tight seals are pressurized.
- The suspicious object is now secured and safe for road transport to the disposal site.
- After disposal of the suspicious object the MBDS is returned to MBDS-station.



Robotic Unit – unloaded



Robotic Unit with Gripping Device



Robotic Unit on the move



Robotic Unit removing a box



Robotic Unit with removed munition



Remotely storing the objekt into MECV



## Mobile Bomb Disposal System (MBDS)



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Alfred Nobel made explosives safe to handle - and changed the world.  
Dynasafe has gone a step further – and changed the world of safety.

### Operators Cabin

dismountable,  
self-contained power,  
armoured

### MECV

gas-tight, dismountable,  
self-contained power,  
armoured

### Robotic Unit

1km remote operation range  
from Operators Cabin,  
with forks and crane



## DYNASAFE Mobile Bomb Disposal System (MBDS)

We continue to face new challenges in our fight against terrorism. New threat-scenarios have to be countered while simultaneously developing new hardware, procedures and delivery systems. Today, integrated systems that are highly mobile and flexible are necessary to fight the dangers from IEDs including car bombs and "dirty bombs". DYNASAFE, the leading global supplier in explosive containment equipment, has developed a solution for these threats called the Mobile Bomb Disposal System (MBDS). The MBDS is an integrated solution that combines the safe removal, containment and transport of objects that are explosive or are suspected of being explosive.

Applications for the MBDS range from remote removal of suspect items, such as IEDs bombs and munitions to road clearance in crisis regions and for securing military forces in their movements within such regions. Additionally, the removal of debris and building demolition in contaminated areas is a potential use.

### The Mobile Bomb Disposal System combines two main functionalities:

- (1) The ability to remotely grip and secure a dangerous object and then to remotely transport that object to an integrated total containment vessel under safe conditions. The system uses DYNASAFE's best selling explosion containment device known as the Mobile Explosion Containment Vessel (MECV)
- (2) The MECV is a gas-tight explosion containment chamber housed on the trailer of the MBDS

## Components of the Mobile Bomb Disposal System (MBDS)

### The Mobile Bomb Disposal System consists of the following subsystems:

- (1) Robotic Unit, a radio remote-controlled vehicle equipped with:
  - a) Hydraulic load crane which includes a quick coupler device to hold the Gripping Device
  - b) Fork Lift Aggregate
  - c) Stabilizers, front and rear
  - d) Vision System, several cameras and video line
- (2) Mobile Explosion Containment Vessel (MECV) for safe containment of the removed objects
- (3) Gripping Device, a fragment shielded gripping tool with a hydraulic attachment frame for remote connection to the crane
- (4) Operators Cabin, an armoured compartment for two operators equipped with radio remote control system and vision system
- (5) Low-bed, 3-axel semi-trailer for transportation of the complete system. The MECV and Operators Cabin are attached to the trailer via standard twist-lock connections and the Robotic Unit is able to be loaded/ unloaded from trailer via rear ramps

## Gripping Device Features

Item to be gripped can have:

- Maximum dimension (width x height x length): 600 x 600 x 900 mm
- Maximum weight of the object: 100 kg

## Mobile Explosion Containment Vessel Features

- Detonation capacity of 5 kg TNT equivalent, gas-tight mode
- Detonation capacity of 10 kg TNT equivalent, non-gas-tight mode

## Crane Features

- Maximum Lifting capacity at maximum outreach: 2100 kg
- Maximum Outreach, includes hydraulic outriggers: 12500 mm

## Fork Lift Features

- Maximum Lifting capacity: 6000 kg (at 600 mm outreach)
- Maximum Lifting height: 400 mm

## Options

- Radiological Shielding
- X-ray investigation device at Gripping Device
- Analytical detection device at Gripping Device
- Additional attachments to Gripping Device, such as disrupters and cutting tools



Gripping Device



Mobile Explosion Containment Vessel



Crane



Fork Lift