CLAIMS

1. A mounting device for an explosive charge for breaching a structure, comprising:

a first layer comprising a first foam material; and

a second layer comprising a second foam material,

in which the first layer comprises a first surface for facing a target and a second surface adjoining the second layer, the second layer comprising a recess for receiving at least one of the explosive charge.

2. A mounting device according to Claim 1, in which the ratio of a flexural modulus value of the first foam material to a flexural modulus value of the second foam material is less than 13 percent.

3. A mounting device according to Claim 1 or 2, in which the first foam material is at least one of:

less dense than the second foam material;

more deformable than the second foam material such that the first layer comprising the first foam material is conformable to a target surface;

has a density in the range of 30 to 60 kg/m^3; or

configured to at least partially densify and lock-up upon detonation of the explosive charge, for enhancing conveyance of energy from the explosive charge to the target

4. A mounting device according to any preceding claim, in which the second foam material has a density in the range of 80 to 120 kg/m^3.

5. A mounting device according to any preceding claim, in which the first foam material and the second foam material each comprise a polyethylene foam,

or

in which the first foam material and the second foam material each comprise a polyethylene foam and in which cells of the polyethylene foam of at least one of the first foam material or the second foam material comprise nitrogen gas.

6. A mounting device according to any preceding claim, in which the first layer has a thickness in the range of 5 mm to 25 mm and the second layer has a thickness in the range of 80 to 120 mm.

7. A mounting device according to any preceding claim, comprising at least one of the explosive charge located within the recess.

8. A mounting device according to any preceding claim, in which the explosive charge is a linear shaped charge or a contact charge.

9. A mounting device according to any preceding claim comprising a fitting for connecting a prop,

or

comprising a fitting for connecting a prop and comprising the prop, the prop comprising the second foam material.

10. A mounting device according to any preceding claim, comprising:

a first body part comprising a first part of the first layer adjoining a first part of the second layer; and

a second body part comprising a second part of the first layer adjoining a second part of the second layer,

the first body part connected with at least one hinge to the second body part,

in which the mounting device is hingeable between:

a closed state with the first body part at least partly overlapping the second body part; and

an open state with the first part of the first layer adjacent the second part of the first layer, to form the first layer, and with the first part of the second layer adjacent the second part of the second layer to form the second layer.

11. A mounting device according to Claim 10, in which with the mounting device in the closed state, the first surface faces outwards.

12. A mounting device according to Claim 10 or 11, in which the first part of the second layer comprises a first recess portion of the recess and the second part of the second layer

comprises a second recess portion of the recess, each of the first recess portion and the second recess portion respectively having a U-shape with a first end and a second end, in which with the mounting device in the open state the first end of the first recess portion abuts the first end of the second recess portion and the second end of the first recess portion abuts the second end of the second recess portion.

13. A mounting device according to Claim 12, the first recess portion comprising a first explosive charge and the second recess portion comprising a second explosive charge, in which with the mounting device in the open state a first end of the first explosive charge abuts a first end of the second explosive charge and a second end of the first explosive charge abuts a second end of the second explosive charge.

14. A mounting device according to Claim 13, comprising:

a first slot for receiving a first detonation cord extending from a detonation node to a first initiation location at the first recess portion; and

a second slot for receiving a second detonation cord extending from the detonation node to a second initiation location at the second recess portion.

15. A mounting device according to Claim 14, the first initiation location located at the first end of the first recess portion and the second initiation location located at the second end of the second recess portion.

16. A mounting device according to any of Claims 10 to 15, in which at least one of:

each of the at least one hinge is a living hinge; or

the mounting device comprises a locking member, in which the locking member is configured to connect with the first and second body parts to lock the mounting device in at least one of the open state or the closed state.

17. A mounting device according to any preceding claim, in which at least one of:

the recess is a channel; or

a base of the recess is a portion of the first layer.

18. A mounting device according to any preceding claim, in which at least one of:

the first foam material has a flexural modulus value in the range of 1.6 to 2.4 mega-pascals (MPa); or

the second foam material has a flexural modulus value in the range of 18.4 to 27.6 mega-pascals (MPa).

19. A mounting device according to any preceding claim, in which at least one of the first layer or the second layer is at least one of:

an assembly of component parts respectively comprising the first foam material or the second foam material; or

comprises a void, hollow, cut-out or opening.

20. A mounting device according to any preceding claim, in which the second layer comprises at least one rib, strut, structural support element or structural support member for structurally supporting the mounting device.