PATENT CLAIMS

1. A flare (10) for the production of a pyrotechnic signature with the aim of producing a camouflage screen etc., for the protection of vehicles and objects, characterized in that the flare (10) is polygonal and coated, with the number of corners (E) being greater than three.

2. Flare ignition for the ejectable flare (10) as claimed in claim 1, characterized in that contactless igniting is carried out by heat transfer within a type of tube or tubular connecting stub (1) with heating elements, wherein the tubular connecting stub (1) has a conically tapering shape.

3. The flare ignition as claimed in claim 2, characterized in that the tubular connecting stub (1) can be heated electrically and by a burner.

4. An ejection system (2) having flare ignition as claimed in claim 2 or 3, characterized by an acceleration unit (3), which is adjacent to the tube (1) and heat decoupling (4) which is located between them.

5. The ejection system as claimed in claim 4, characterized in that the diagonal (D_F) between the corners (E) of the flare (10) is greater than the rear internal diameter (D_{IR-1}) but is less than or equal to the front internal diameter (D_{IR-2}) of the tubular connecting stub (1).

6. The ejection system as claimed in one of claims 4 or 5, characterized in that the flares (10) can be accelerated mechanically, pneumatically or pyrotechnically.

CLAIMS

1. An ejection system comprising:
(A) a flare ignition system comprising
i. a tubular connecting stub provided with one or more heating elements disposed to heat the tubular connecting stub, wherein the tubular connecting stub has a conically tapering shape, wherein contactless ignition of an ejectable flare occurs due to heat transfer from the tubular connecting stub to a pyrotechnic film of the flare when the tubular connecting stub is heated by the one or more heating elements and when the flare is disposed along an inner wall of the tubular connecting stub, wherein the flare is polygonal in shape and comprises corners, wherein the number of corners is greater than three, and the flare is coated with the pyrotechnic film, wherein when ignited, the flare produces a pyrotechnic signature suitable for producing a camouflage screen for the protection of vehicles and objects;
(B) an acceleration unit that is disposed adjacent to the tubular connecting stub of the flare ignition system; and
(C) a heat decoupling that is located between the acceleration unit and the tubular connecting stub.

2. The ejection system as claimed in claim 1, wherein the tubular connecting stub has a rear internal diameter (D_{IR-1}) and a front internal diameter (D_{IR-2}), wherein a diagonal (D_F) between corners of the flare is greater than the front internal diameter (D_{IR-2}) but is less than or equal to the rear internal diameter (D_{IR-1}) of the tubular connecting stub.

3. The ejection system as claimed in claim 2, wherein the flare is accelerated by the acceleration unit either mechanically, or pneumatically, or pyrotechnically.

4. The ejection system as claimed in claim 3, wherein the acceleration unit comprises a spindle drive, and the flare is mechanically accelerated by the spindle drive of the acceleration unit.

5. The ejection system as claimed in claim 3, wherein the acceleration unit comprises a pneumatic system, and the flare is pneumatically accelerated by the pneumatic system of the acceleration unit.

6. The ejection system as claimed in claim 1, wherein the flare is accelerated by the

acceleration unit either mechanically, or pneumatically, or pyrotechnically.

7. The ejection system as claimed in claim 6, wherein the acceleration unit comprises a spindle drive, and the flare is mechanically accelerated by the spindle drive of the acceleration unit.

8. The ejection system as claimed in claim 6, wherein the acceleration unit comprises a pneumatic system, and the flare is pneumatically accelerated by the pneumatic system of the acceleration unit.

9. The ejection system as claimed in claim 1, wherein the heat decoupling comprises insulation.

10. An ejection system comprising:

(A) a flare ignition system constructed to eject an ejectable flare that produces a pyrotechnic signature with the aim of producing a camouflage screen for the protection of vehicles and objects, wherein the flare is polygonal in shape and comprises corners, wherein the number of corners is greater than three, and the flare is coated with a pyrotechnic film, and wherein the flare ignition system comprises

i. a tubular connecting stub provided with one or more heating elements disposed to heat the tubular connecting stub, wherein the tubular connecting stub has a conically tapering shape, wherein contactless ignition of the flare occurs due to heat transfer from the tubular connecting stub to the pyrotechnic film of the flare when the tubular connecting stub is heated by the one or more heating elements and when the flare is disposed along an inner wall of the tubular connecting stub, and wherein the one or more heating elements are selected from the group consisting of electrical heating elements and a burner;

(B) an acceleration unit that is disposed adjacent to the tubular connecting stub of the flare ignition system; and

(C) a heat decoupling that is located between the acceleration unit and the tubular connecting stub.

11. The ejection system as claimed in claim 10, wherein the tubular connecting stub has a rear internal diameter (D_{IR-1}) and a front internal diameter (D_{IR-2}), wherein a diagonal (D_F) between corners of the flare is greater than the front internal diameter (D_{IR-2}) but is less than or equal to the rear internal diameter (D_{IR-1}) of the tubular connecting stub.

12. The ejection system as claimed in claim 11, wherein the flare is accelerated by the acceleration unit either mechanically, or pneumatically, or pyrotechnically.

13. The ejection system as claimed in claim 12, wherein the acceleration unit comprises a spindle drive, and the flare is mechanically accelerated by the spindle drive of the acceleration unit.

14. The ejection system as claimed in claim 12, wherein the acceleration unit comprises a pneumatic system, and the flare is pneumatically accelerated by the pneumatic system of the acceleration unit.

15. The ejection system as claimed in claim 10, wherein the flare is accelerated by the acceleration unit either mechanically, or pneumatically, or pyrotechnically.

16. The ejection system as claimed in claim 15, wherein the acceleration unit comprises a spindle drive, and the flare is mechanically accelerated by the spindle drive of the acceleration unit.

17. The ejection system as claimed in claim 15, wherein the acceleration unit comprises a pneumatic system, and the flare is pneumatically accelerated by the pneumatic system of the acceleration unit.

18. The ejection system as claimed in claim 10, wherein the heat decoupling comprises insulation.

19. An ejection system comprising:
(A) at least one ejectable flare, wherein the flare is polygonal in shape and includes corners, wherein the number of corners is greater than three, and the flare is coated with a pyrotechnic film;
(B) a flare ignition system comprising
i. a tubular connecting stub provided with one or more heating elements disposed to heat the tubular connecting stub, wherein the tubular connecting stub has a conically tapering shape, wherein contactless ignition of the ejectable flare occurs due to heat transfer from the tubular connecting stub to the pyrotechnic film of the flare when the tubular connecting stub is heated by the one or more heating elements and when the

flare is disposed along an inner wall of the tubular connecting stub, wherein when ignited, the flare produces a pyrotechnic signature suitable for producing a camouflage screen for the protection of vehicles and objects;

(C) an acceleration unit that is disposed adjacent to the tubular connecting stub of the flare ignition system; and

(D) a heat decoupling that is located between the acceleration unit and the tubular connecting stub, wherein the heat decoupling comprises insulation,

wherein the tubular connecting stub has a rear internal diameter (D_{IR-1}) and a front internal diameter (D_{IR-2}), wherein a diagonal (D_F) between corners of the flare is greater than the front internal diameter (D_{IR-2}) but is less than or equal to the rear internal diameter (D_{IR-1}) of the tubular connecting stub, and the one or more heating elements are selected from the group consisting of electrical heating element and a burner, and

wherein the flare is accelerated by the acceleration unit either mechanically, or pneumatically, or pyrotechnically.