



DEFENSEPYROTECHNIC RELEASE SYSTEM

Pyroalliance designs and manufactures pyrotechnic systems involved in different actuations for safety applications. A typical application is triggering cutting cords involved in the emergency release of a fuel tank.

The overall dimensions as well as final outputs can be adjusted depending on the application. Different actuators are possibly triggered at various moments of the release sequence.

More generally, Pyroalliance delivers complete pyrotechnic chains adapted to its customers' needs. They are designed and manufactured under Pyroalliance design authority.

Operating mode

Pyrotechnic devices enable the implementation of specific systems on helicopters to be activated in case of emergency landing. A specific system allows in particular the in-flight emergency release and jettisoning of an optional fuel tank, thus limiting the fire risks during emergency landing.

To achieve this, the pyrotechnic release system is equipped with detonating cords, which cut the connecting parts of the system to be dropped off. This is formed by a linear charge holder that will release the optional fuel tank.

The system is triggered by mechanical action from the pilot and is completely autonomous as it does not require any external energy (whether electrical or hydraulic...).

During operation, the part of system installed in the aircraft cabin remains hermetic from any pyrotechnic combustion gas.

Typical performances and features

Operating time	<<1 second
Size, Weight and Power (SWaP)	SWaP adapted to the mission
Temperatures	Adapted to typical airborne military climatic environment
Reliability	Very high
Life Time	Adapted to the mission and life profile
Triggering input	Mechanical action performed by the pilot
Distance order to action	> 8 meters

Benefits

- High speed of operation
- High reliability level (integrated redundancy)
- No required maintenance
- Hermeticity: contained effects, no fragments or flames close to the pilot and passengers
- Energetically autonomous
- Extended temperature domain

3-way manifold Rear chain Linear shaped charge device Front chain Control unit

Applications

- Tank release
- Door ejection

CLASSIFICATION

Transport regulation:

• UN Number : UN 0288

Proper shipping name: CHARGES, SHAPED, FLEXIBLE, LINEAR

• Division: 1.1

Compatibility group : D

Not restricted by ITAR regulation

For more information

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