

SEPARATION BOLT

A pyrotechnic separation bolt is a bolt designed to fracture at a specific pre-determined separation point at precisely the right time. The bolt will experience intentional mechanical failure resulting in the planned separation and with contained debris output. Separation bolts are activated by pyrotechnic inputs, such as initiators or pressure cartridges.

Designed for missile, spacecraft and marine applications where rapid structure separation is demanded. Piston actuated and hydrodynamic (pressure amplified) pyrotechnic separation bolts are available in a wide range of sizes, configurations and tensile capacities (from as little as 200 pounds to as much as 1,000,000 pounds). Our engineers are here to support you in meeting your structural loading, envelope and environmental requirements and guide you on ways to mitigate shrapnel and products of combustion.



SPECIFICATIONS

- Input Stimulus, Typical: 3.5 amp (when electrically initiated)
TLX or SMDC input
4.5 AMP/4.1 millisecond
- Tensile Strength: Up to 550,000 lbf
- Operating Temperature: Designs as low as -65 °F and up to +270 °F
- Separation Time, Typical: <10 milliseconds after application of All-Fire input stimulus
<5 milliseconds at greater currents
- Hermesticity (pre-function): Designs that comply with 1×10^{-6} cc He/sec at 1 atm

