Non-Pyrotechnic Hold Down and Release Mechanisms (HDRMs)

Customer-Refurbishable, Fused-Wire Based Technology

Hold down release mechanisms are used to secure and deploy satellites and satellite appendages including solar arrays, reflector antenna, booms, and masts. Historically, release devices of this type have included explosive release nuts, bolt cutters, separation nuts, as well as wire and pyro cable cutters. Glenair non-explosive HDRMs employ a fusible wire-actuated nut technology that solves many of the problems associated with explosive hold down and release devices, including easy on-site refurbishment after test. Glenair Space Systems designed and manufactured HDRMs are not subject to US ITAR or Commerce Department restrictions.

Non-Pyrotechnic Hold Down and Release Mechanisms

ITAR and non-ITAR controlled solutions with flight heritage

HDRM DUTY CLASSES

- Light-Duty HDRM
  - Redundant circuit, 5 – 75 lb release preload
- Medium Duty HDRM
  - Redundant circuit, 300 – 4000 lb release preload
- Heavy Duty HDRM
  - Redundant circuit, 5000 – 20,000 lb release preload

HDRM RELEASE TYPES

- Separation nut
- Pin puller
- Pin pusher

NORTH AMERICAN AND EUROPEAN (NON-ITAR-CONTROLLED) HDRM SOLUTIONS

Glenair is pleased to offer both our North American and European customers access to our innovative hold-down release mechanism technologies. These non-pyrotechnic space mechanisms are ideally suited for satellites, payload fairing, antenna array, solar array, and boom and mast deployment. Independently and locally engineered and certified for use in NASA, ESA, and private exoatmospheric applications, these flight heritage, proven HDRM technologies are now available to our European partners without US Defense or Commerce department restrictions.