Unique Products for Military Applications

Our various shock and vibration protection products are continually expanding to provide customers with unique application solutions for various military programs. With our extensive knowledge and experience we are able to provide superior analysis, products, services and support. While our teaming and partnership approach sets us apart from the competition.

Applications/Products

- **Electronics and Radar**
  - Wire Ropes
  - Elastomers
  - Hydraulic Shock Absorbers

- **Engine, Drivetrain and Suspension**
  - Rate Controls
  - Special Isolators
  - Time Delay Products

- **Weapon and Transport Systems**
  - Recoil Management
  - Shock Absorption
  - Stabilization Skids

- **Missile and Munitions**
  - Dashpots
  - Buffers
  - Hydraulic Dampers

Shock and Vibration Solutions for Military Applications

Enidine
7 Centre Drive
Orchard Park, New York 14127 • USA
Phone: 716-662-1900
Fax: 716-667-1385
Email: defensesales@itt.com
www.enidine.com

An ITT Company
DEF231R4   12/20

ENIDINE

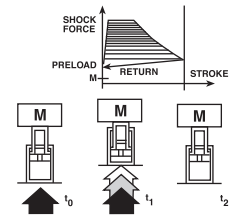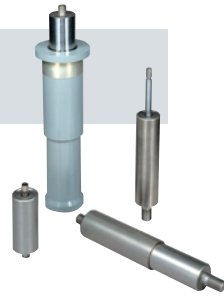# Shock and Vibration Isolation Solutions for Military Applications

Energy Absorption

HYDRAULIC ISOLATOR

Static spring preload provides payload support and is combined with highly efficient protective hydraulic damping when the preload is exceeded.

APPLICATION

Single and double acting applications include missile VLS, close-in gun systems and electronic equipment assuring acceptable output G levels into system payload.
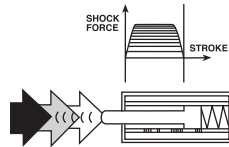
BUFFER

Rugged, high-capacity, efficient energy absorption utilizing a variable orificing design which keeps the output shock force to a minimum.

APPLICATION

Commonly applied in salt water environment on shipboard applications for elevation and azimuth axis of large weapon and tracking radar systems.
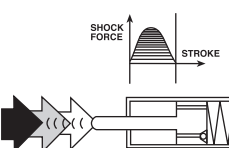
DASHPOT

Provides the maximum energy absorption capability within a given size and weight constraint.

APPLICATION

Size and weight sensitive airborne defense systems include aircraft radar and missile gyros and often utilize a double piston configuration for bi-directional use to further reduce dashpot size and weight.
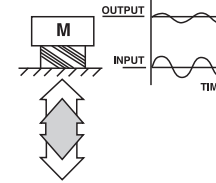
Vibration Isolation

ELASTOMERIC ISOLATOR

Molded/bonded elastomeric/metallic assemblies provide static payload support and protection against the negative effects of vibration.

APPLICATION

Protection for delicate and sensitive military modules including computers, avionics and electronic equipment as well as more rugged shipping container/canister type applications.
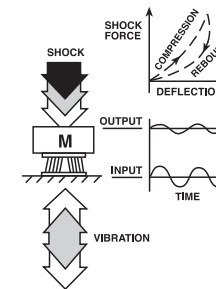
WIRE ROPE ISOLATOR

Deflection induces cable strand frictional damping providing multi-axes isolation from shock and vibration inputs.

APPLICATION

Traditionally applied to support and isolate shipboard electronic equipment, wire rope isolators offer extremely long, maintenance free service life. Reciprocating machinery and naval minesweeper deck isolation are other successful applications.
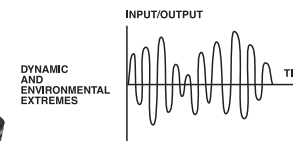
SPECIAL ISOLATOR

Various damping media can provide protection against extreme input frequencies, amplitude, temperature ranges and other environmental conditions.

APPLICATION

Examples include acoustic isolators, wire mesh auxiliary power unit mounts, and aircraft engine mounts.
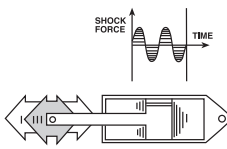
Motion Control

DAMPER

Minimal stroking friction facilitates high frequency, double acting hydraulic damping.

APPLICATION

Vehicle suspension systems, machine gun recoil and missile control fin flutter are prime examples for 5 to 20 Hz applications which use dampers to reduce system shock, vibration and fatigue.
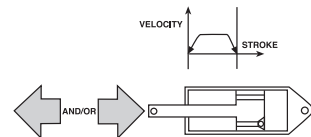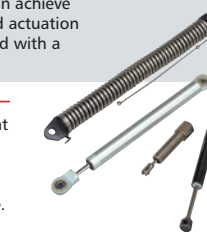
RATE CONTROL

Custom orificing and valving can achieve bi-directional speed control and actuation in either direction when coupled with a mechanical spring.

APPLICATION

Crew access hatches, equipment access panels and missile fin deployment applications all operate smoothly at a desired angular opening or closing rate.

TIME DELAY

Precision fluid metering offers precise piston displacement within a highly repeatable time frame.

APPLICATION

This unique use of a dashpot design serves as a munitions fuse, a tank steering transmission coolant control and a transporter faucet flow timer.