

## Global Presence

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ITT Control Technologies provides durable and reliable defense products that aerospace engineers demand and military personnel deserve.

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- Operating with lean manufacturing and cellular production, Enidine produces higher quality custom and standard products with greater efficiency and within shorter lead times.
- Enidine's comprehensive website is full of application information, technical data and sizing examples that will assist you in selecting the product that's right for you.

Our website also features a worldwide representative lookup to help facilitate fast, localized service. For application assistance call our technical help line at 1.800.852.8508 ext.253.

Founded in 1920, ITT is headquartered in White Plains, NY, with employees in more than fifteen countries and sales in more than 125 countries.

The company generated pro forma 2010 revenues of approximately \$2 billion. For more information, visit [www.itt.com](http://www.itt.com).



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## Defense Solutions for Energy Absorption and Vibration Isolation



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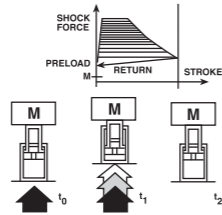
# Defense Solutions for Energy Absorption and Vibration Isolation

## Energy Absorption

### HYDRAULIC ISOLATOR

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

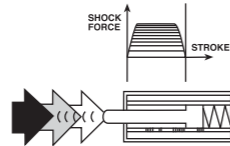
**APPLICATION**  
Single and double acting applications include missile VLS, close-in gun systems and electronic equipment assuring acceptable output G levels into system payload.



### BUFFER

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

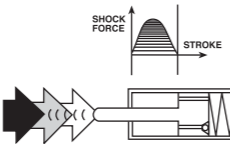
**APPLICATION**  
Commonly applied in salt water environment on shipboard applications for elevation and azimuth axis of large weapon and tracking radar systems.



### 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.

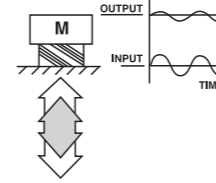


## Vibration Isolation

### ELASTOMERIC ISOLATOR

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

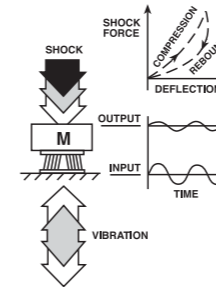
**APPLICATION**  
Protection for delicate and sensitive military modules including computers, avionics and electronic equipment as well as more rugged shipping container/canister type applications.



### WIRE ROPE ISOLATOR

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

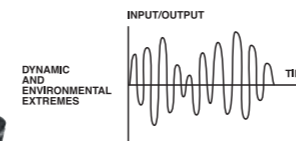
**APPLICATION**  
Traditionally applied to support and isolate shipboard electronic equipment, wire rope isolators offer extremely long, maintenance free service life. Reciprocating machinery and naval minesweeper deck isolation are other successful applications.



### 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.

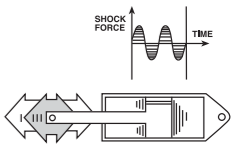


## Motion Control

### DAMPER

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

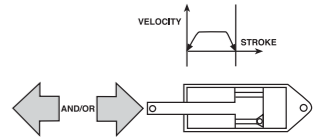
**APPLICATION**  
Vehicle suspension systems, machine gun recoil and missile control fin flutter are prime examples for 5 to 20 Hz applications which use dampers to reduce system shock, vibration and fatigue.



### 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.

