Applications

Engine/APUs
- Isolators
- Support tube isolation
- Main engine isolation
- Engine electrical isolation
- APU access doors
- Flight-critical products

Interior Panels
- Sidewall, ceiling, floor panel isolation
- Interior noise isolation
- Electronics isolation

Ground Support Equipment
- Stow-down stowage bins
- Door opening stowage bins
- Life raft stowage bins
- Stowage boxes
- Stowage bin support/noise attenuation
- Pivot Bins
- Stowage bin visors

Aerospace Controls
- APU Isolators
- APU support tube isolation
- Main engine isolation
- Engine electrical isolation
- APU access doors
- Flight-critical products

Certifications
- AS9100 Approved
- ISO 9001
- PMA Part Approvals
- Numerous seat lock products are 16-g tested and approved

Vibration and Dynamic Testing
- Drop System: up to 5,000 lb and 600 in./sec.
- Electromechanical shakers with digital controllers
- Dynamic testing: up to 500,000 lb at 80 in./sec.

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for growing industrial markets in energy infrastructure, electronics, aerospace and transportation. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life.

Founded in 1920, ITT is headquartered in White Plains, NY, with employees in more than 15 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.
Applications

Engine/APUs
- APU Isolators
- APU support tube isolation
- Main engine isolation
- Engine electrical isolation
- APU access doors
- Flight critical products

Door/Others
- Drop-down stowage bins
- Door opening stowage bins
- Life raft stowage bins
- Stowage boxes
- Stowage bin support/noise attenuation
- Pivot Bins
- Stowage bin visors

Applications

Galley/Lavs
- Faucet time delay
- Toilet seat and lid damper
- Garbage waste flaps
- Galley chiller supports

Seat
- Passenger seat recline
- Seat leg rest extensions
- Flight attendant seats
- Executive aircraft seats
- Crew seat arms
- Helicopter passenger seats
- Seat arm video monitor deploy

Ground Support Equipment
- Tow bars
- Ground support fuel tank
- Baggage handling systems
- Suspension shocks
- Engine stands

Emergency Systems
- Escape door actuation
- Avionics shock isolation
- Cargo / Passenger door deployment
- Access panel doors
- Cargo handling energy absorption
- Door latch actuation

Global Presence

ITT is a diversified leading manufacturer of highly-engineered critical components and customized technology solutions for growing industrial end-markets in energy infrastructure, electronics, aerospace and transportation. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions for the key industries that underpin our modern way of life.

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.
**Lavatory**
- Faucet Time Delay
  - Controls water flow time
  - Minimizes water waste

- Waste Flap Control
  - Automatic controlled flap return
  - Eliminates flap closing noise

- Toilet Seat/Cover Closing
  - Smooth, controlled articulating at joint for separation of seat and anti-clamping control

**Auxiliary Power Unit and Main Engines**

- Access Door Control
  - Actuates door open
  - Panelized components
  - Sound load flaps

- Engine Isolation
  - Statically supports high temperature operating APU
  - Rainproof power unit isolation in airframe
  - Main engine isolators
  - Reduces engine sensitive electronic equipment

**Stowage Bins**
- Baggage Bin
  - Noise Abatement
  - Rotates and stops at end of travel

- Engine Cowling Strut
  - Controls cowling closing rate
  - Resists wind gusts
  - Enhances safety of engine maintenance personnel

**Seats**
- Passenger Seat
  - Articulated
  - Smooth, controlled articulating at joint for separation of seat and anti-clamping control

- Flight Attendant Seat Positioning
  - Seat folds up automatically
  - Goes airworthable for emergency egress

**Ceiling Equipment**
- Life Raft Bin Lowering Control
  - Controlled, balanced lowering of heavy life rafts
  - Zero maintenance

**Doors**
- Fan Cowl, Passenger and Cargo
  - Gas Springs
  - Provides consistent actuation force to control doors and door latching mechanisms

**Access Door Control**
- Provides consistent actuation force to control doors and door latching mechanisms

**Actuator/Rate Controls**
- Rate Controls
  - Structural Bore
  - Statically supports equipment
  - Minimizes vibration and noise transmission into cabin interior

- Door Opening Stowage Bin
  - Automatic, smooth door lift
  - Door held in fully open position for easy passenger access

- Drop Down Stowage Bin
  - Smooth, controlled articulating at joint for separation of seat and anti-clamping control

- FSR’s
  - Actuator/Rate Controls
  - Linear Actuators
  - UltraLOC™
  - Engine Isolation
  - Statically supports high temperature operating APU
  - Isolates power unit vibration to airframe
  - Main engine isolators
  - Reduces engine sensitive electronic equipment

- Door Swing Control
  - Provides consistent actuation force to control doors and door latching mechanisms

- Gas Springs
  - Propels consistent actuation force to control doors and door latching mechanisms

- Rotary Hinge Damper
  - Rotary Hinge Damper Controls

- Rotary Damper
  - Controls actuator, serving rate – meets wind gusts
  - Minors fatigue of engine maintenance personnel
**Lavatory**

- **Faucet Time Delay**
  - Controls water flow time
  - Minimizes water waste

- **Waste Flap Control**
  - Automatic, controlled flap return
  - Eliminates flap closing noise

- **Toilet Seat/Cover Closing**
  - Smooth, controlled articulating at seat liftopening motion
  - Eliminates free-fall noise irritation

- **Engine Cowling Strut**
  - Controls cowling closing rate – resists wind gusts
  - Enhances safety of engine maintenance personnel

- **Flight Attendant Seat Positioning**
  - Seat folds up automatically
  - Clears aircraft aisle for emergency exiting

**Stowage Bins**

- **Structural Bases**
  - Noise Abatement
  - Rigidly supports equipment
  - Minibehaves and noise
  - Minimizes air turbulence and cabin noise

- **Drop-Down Stowage Bin**
  - Smooth, controlled articulating at seat liftopening motion
  - Eliminates free-fall noise irritation

- **Toilet Seat/Cover Closing**
  - Smooth seat/cover closing motion
  - Eliminates free-fall noise irritation

**Seats**

- **Passenger Seat Recline Control**
  - Smooth, controlled articulating at seat liftopening motion
  - Minimizes air turbulence and cabin noise

**Seating Equipment**

- **Life Raft Bin Lowering Control**
  - Controlled, balanced lowering of heavy life rafts
  - Zero maintenance

**Auxiliary Power Unit and Main Engines**

- **Access Door Control**
  - Actuates door-open, door-close, door-latch mechanisms
  - Minimizes door closing noise

- **Engine Isolation**
  - Statically supports high temperature operating APU
  - Minimizes power unit vibration to airframe
  - Minimizes engine's sensitive electronic equipment

- **Door Opening Stowage Bin**
  - Automatic, smooth door lift
  - Door held in full-open position for easy passenger access

**Exterior Structural Borne Noise Abatement (ESN) Isolators**

- **Rate Controls**
  - Minimizes transmission into cabin interior

**Doors - Fan Cowl, Passenger and Cargo**

- **Door Opening Control**
  - Controls rate, position rate - feeds wind gusts
  - Minimizes stress of engine maintenance personnel

- **Door Swing Closing**
  - Provides constant actuation force to control doors and door latching mechanism

**Passenger Seat Recline Control**

- **Seat Bases**
  - Noise Abatement
  - Rigidly supports equipment
  - Minibehaves and noise
  - Minimizes air turbulence and cabin noise

- **Passenger Seat**
  - Recline control:
    - Easy, smooth passenger seat recline
    - Long, in-service life expectancy
    - 16G crash certified hardware

- **Leg rest deployment**
  - Smooth, floppy-leg extension
  - 16G crash certified hardware

**Faucet Time Delay**

- **Engine Isolation Mounts**
  - Statically supports high temperature operating APU
  - Isolates power unit vibration to airframe
  - Main engine isolators
  - Minimizes engine's sensitive electronic equipment

- **Gas Springs**
  - UltraLOC™

- **Gas Springs**
  - flight attendant seat positioning
  - seat folds up automatically
  - Goes aircraft safe for emergency egress

- **Drop-Down Stowage Bin**
  - Smooth, controlled articulating at seat liftopening motion
  - Minimizes air turbulence and cabin noise

- **Door Opening Stowage Bin**
  - Automatic, smooth door lift
  - Door held in full-open position for easy passenger access

- **Rotary Hinge Damper**
  - Controls rate, position rate - feeds wind gusts
  - Minimizes stress of engine maintenance personnel
Facet Time Delay
- Controls outer door time
- Minimizes water spray

Waste Flap Control
- Automatic controlled flap return
- Eliminates flap closing noise

Toilet Seat/Cover Closing
- Smooth, controlled articulating at joint to prevent seat damage and anti-shafting control

Engine Cowling Strut
- Controls cowling closing rate - resists wind gusts
- Enhances safety of engine maintenance personnel

Flight Attendant Seat Positioning
- Seat folds up automatically
- Ensures aircraft safe for emergency exiting

Passenger Seat
- Recline control
- Easy, smooth passenger seat recline
- Long, in-service life expectancy
- 16G crash certified hardware

Leg rest deployment
- Smooth leg rest extension
- 16G crash certified hardware

Gas Springs
- Controls water flow time
- Minimizes water waste

Waste Flap Control
- Automatic, smooth door lift
- Door held in full open position for easy passenger access

Access Door Control
- Actuates door-open
- Actuates door-closed
- Actuates door-latched
- Minimizes door closing

Engine Isolation
- Statically supports high temperature operating APU
- Isolates power unit vibration to airframe
- Main engine isolators
- Minimizes engine's sensitive electronic equipment

Door Swing Control
- Provides consistent actuation force to control doors and door latching mechanisms

APU Isolator
- UltraLOC™
- Statically supports high temperature operating APU
- Isolates power unit vibration to power unit
- Main engine isolators
- Minimizes engine's sensitive electronic equipment
Applications

- APU Isolators
- APU support tube isolation
- Main engine isolation
- Engine electrical isolation
- APU access doors
- Flight critical products

- Drop-down stowage bins
- Door opening stowage bins
- Life raft stowage bins
- Stowage boxes
- Stowage bin support/noise attenuation
- Pivot Bins
- Stowage bin visors

- Escaper door actuation
- Avionics shock isolation
- Cargo / Passenger door deployment
- Access panel doors
- Cargo handling energy absorption
- Door latch actuation
- Tow bars
- Ground support fuel tank
- Baggage handling systems
- Suspension shocks
- Engine stands

- Faucet time delay
- Toilet seat and lid damper
- Garbage waste flaps
- Galley chiller supports
- Passenger seat recline
- Seat leg rest extensions
- Flight attendant seats
- Executive aircraft seats
- Crew seat arms
- Helicopter passenger seats
- Seat arm video monitor deploy

Solutions

Engineering Design Systems
- Flight-critical components
- FEA analysis capability
- System modeling
- Integrated PDM system

Vibration and Dynamic Testing
- Full in-house testing capabilities
- Drop testing - up to 4,000 lbs. and 600 in./sec.
- Vibration - Electromechanical shakers with digital controllers
- Dynamic testing - up to 500,000 lbs. at 80 in./sec.

Certifications
- AS9100 Approved
- ISO 9001
- PMA Part Approvals
- Numerous seat lock products are 16-g tested and approved

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