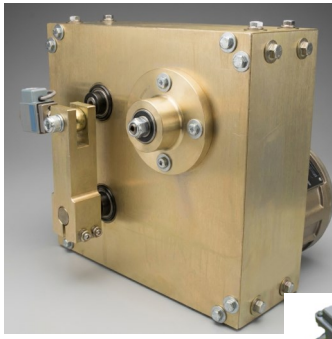




Control Loading Systems

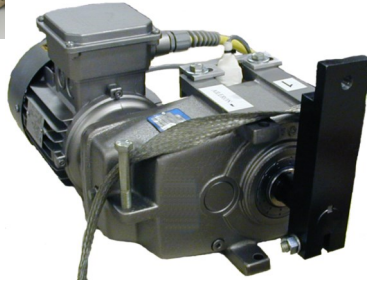
Realistic Control Feel for Flight Simulation Applications

Fully programmable electric control loading systems for fixed-wing, rotary-wing, research, and training simulators.

Designed for FAA Level 1 through Level D applications.

Precision Flight Control Loading

Servos & Simulation control loading systems provide realistic force feedback for aircraft flight controls, delivering accurate control feel, breakout forces, damping, friction, trim effects, and dynamic loading characteristics. Our systems are used in commercial, military, and research simulation environments ranging from FAA Level 1 trainers through Level D Full Flight Simulators.



Model 300-X Control Loaders

FAA Levels 1–6—Designed for secondary flight controls and lower-level simulators where high torque, reliability, and affordability are required.

Key Benefits

- Digital force control
- Easier tuning than mechanical spring systems
- High torque output
- AC servo motor design
- Computer and maintenance software included
- Customizable control feel profiles

Typical Applications

- Rudder Pedals
- Throttles
- Trim Controls
- Secondary Flight Controls
- Research Simulators

Model 400-X Control Loaders

FAA Level 7 through Level D—Designed for primary flight controls requiring the highest levels of fidelity, dynamic response, and force realism.

Key Benefits

- High-fidelity force feedback
- Low inertia motor design
- Integrated load cells
- High torque and velocity performance
- FAA Level D capable architecture
- Computer and maintenance software included

Typical Applications

- Control Columns
- Fighter Sticks
- Sidesticks
- Rudder Pedals
- Autopilot Backdrive Systems

Additional Products

Vibration Systems

Enhance pilot cueing with supplemental vibration systems:

- Single-axis Seat Shakers
- Buffet Simulation
- Engine Vibration Effects
- Airframe Feedback

Why Servos & Simulation

- Fully Electric Systems
- Digital Force Control
- FAA Level D Capable Solutions
- Custom Aircraft Dynamics
- Made in USA
- Lifetime Technical Support
- More Than 35 Years of Simulation Experience

Dynamic Control Modeling

Servos & Simulation control loading systems support advanced aircraft dynamics modeling including:

- Multi-mass system modeling
- Aircraft force measurements
- Dynamic control force curves
- Verification & Validation (V&V)
- Custom aircraft feel modeling

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