

The Ram Air Turbine (RAT) deployment actuators are single acting actuators extended by springs and stowed by high-pressure hydraulic fluid. The actuators lock in both the stowed and deployed positions.

The primary components include deployment springs, solenoid actuated stow lock mechanism, hydraulically actuated deployed position lock mechanism, and stationary/extendable housing components.

Applications Include:

- Aircraft Emergency Power

Operational Characteristics:

- Extends Ram Air Turbine into airstream to provide emergency hydraulic power in event of loss of all engine power
- Redundant solenoid design
- End of stroke snubbing limits reaction loads
- Designs are individually tailored by application to limit peak snubbing pressure
- Hydraulic pressure not required for deployment
- Hydraulic pressure required for slow (ground) operation only



Design Characteristics:

- Operating pressures up to 5,000 psig
- Stow and deploy locks
- Petroleum or phosphate ester based fluids
- Ambient operating temperatures -65 to 160 °F
- Minimal electrical current required for deployment
- Bi-directional velocity controls
- Integral ground control valves available
- Single and dual deployment spring rates
- Electrical indication of stow lock status

Who Is Arkwin?

Arkwin Industries is the technical expert in all things hydraulic for aerospace and defense. We design, test, manufacture, and support precision hydraulic and fuel system components for civil and military fixed-wing aircraft, helicopters, spacecraft, turbine engines, and other special applications.

Our reputation for quality and reliability, as well as our location, allow us to attract some of the best engineering, technical, and manufacturing talent available.

Platforms

A320	A330	A340
A350	A400M	747-8
757	777	777X
G650	CL604	Falcon 7X
787		

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