



## ACTUATION SYSTEMS

# Actuation systems for land-based military vehicles

## Suspensions for high-intensity land operation

Collins Aerospace develops custom actuation systems to meet the specific requirements of land-based military vehicles. We leverage our fully dedicated, onsite engineers and laboratories to work collaboratively with end users throughout the entire development process.

The unique Collins process features integrated and confidential part fabrication for machining and surface treatment to increase performance and reliability. We also use model-line architecture and digitalisation manufacturing, and automated high-pressure testing to ensure our systems are field-ready.

[collinsaerospace.com/militaryactuation](https://collinsaerospace.com/militaryactuation)



## SPECIFICATIONS

Temperature: -30/+50°C (up to +90°C for any land surface environment)

Vehicle payload: 24 to 33 tons

Max payload per wheel: 10 tons

Strut weight: 50 kg

Length: 1 m

## KEY FEATURES & BENEFITS

- Custom actuators for land-based military platforms
- High-pressure testing
- Adaptable to extreme temperatures
- High on-time delivery rate
- Manufacturer collaboration throughout development process



**Collins Aerospace**  
An RTX Business

## WHEELED ARMoured PROTECTION AND DEFENCE VEHICLES

Collins' hydro-gas suspension provides a reliable, adaptable, low-maintenance actuation solution for wheeled armoured protection and defence vehicles between 10 and 40 tons.

- Leverages nitrogen technology to enable damping movement and high-pressure limitation of shocks.
- Adapts to high and low temperature variances.
- Proven reliability in sand, water, mud and mixed terrain.
- Limits weight and eases maintenance by using a reduced number of parts.
- Prevents shock at the end of compression with a bump stop.

## WHEELED AND TRACKED HEAVY ARMoured VEHICLES

Our twin-cylinder, hydro-pneumatic suspension is an ideal actuation system for wheeled and tracked heavy armoured vehicles, such as main battle tanks (MBTs) in the 50-to-70-ton class.

- Allows high-speed vehicle lift and obstacle crossing (70 km/h+ for MBTs).
- Maximises the absorption of shocks for hull and crew.
- Features unique progressive stiffness and amortisation adaptable to the necessary effort required.
- Provides unequalled energy absorption capacity and comfort.
- Improves stabilisation and mobility via damping control and self-levelling.



Specifications subject to change without notice.

### COLLINS AEROSPACE

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