ATMA FACT SHEET 2022

Royal TRUCK & EQUIPMENT INC.

ATMA

KRATOS
READY FOR WHAT'S NEXT

System Uses

The autonomous system improves worker safety in a variety of operations.

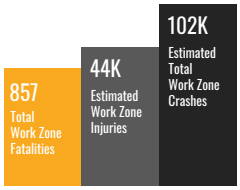
- Sweeping
- Line Striping
- Maintenance
- Mowing
- Plowing

Mission & Vision

Royal Truck & Equipment with Kratos Defense embarked on a mission in 2015 to transform safety in moving highway operations. We continue that journey together today with a shared vision of removing the danger for TMA drivers by removing the need for a driver.

Work Zone Crashes

The latest data from 2020 shows that work zone crashes and fatalities are increasing.



Benefits

- Eliminates the danger for a TMA driver.
- Provides better protection to lead vehicle by maintaining proper roll-ahead distance.
- Avoids potential for secondary impact to a lead vehicle by ensuring the TMA stays on-course in an impact, avoiding the human instinct for self-preservation.

Deployments

2017
Colas U.K.
Colorado DOT

2019
Missouri DOT
Caltrans
Tennessee DOT

2020
Florida DOT
Minnesota DOT
Colorado DOT (2nd)

2021
North Dakota DOT
Missouri DOT (2nd)

2022
Indiana DOT

Key Metrics

5 Years Operating in Live Environments

2,000+ Miles of Highway Traveled

16 States Participating in Pool Funding

11 Systems Deployed in the U.S. & U.K.

0 Drivers Injured or Killed in the ATMA

Cost & Timing Factors

- Types of vehicles to be configured
- Location of installation/transportation
- Retrofitting or buying new
- Level of training required
- Duration of use (lease option)

Top 4 Considerations

1. One ATMA can be paired with different vehicles (requires leader kit in each vehicle).
2. If you prefer to retrofit, the ATMA vehicle must have an automatic transmission.
3. Optimized and deployable on highway, county and other smaller roadways.
4. We'll help draft your deployment plan leveraging our extensive DOT, legislation, and maintenance knowledge based on experience from previous deployments.

Key Capabilities

Speed	Obstacles	Vehicle Gap
1-20mph	Up to 250ft	50ft – 1,600ft

How It Works

The Leader vehicle is upfitted to enable transmission of GPS data e-crumbs to the driverless Follower (ATMA) vehicle.

The ATMA vehicle uses the GPS data to follow the exact course and speed of the Leader vehicle along the route.

The ATMA maintains precise roll-ahead distance, detects obstacles, senses G-force, and reacts to e-stops executed by the Leader.