

Tipper Tilt Prevention System



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About Us

SR Vision Enterprises delivers DGMS-compliant, technology-driven safety solutions for mining, construction, ports, and warehouses—enhancing safety, efficiency, and operational excellence even in extreme environments.

Our Vision

To deliver maximum customer value through reliable and innovative safety solutions.

Our Mission

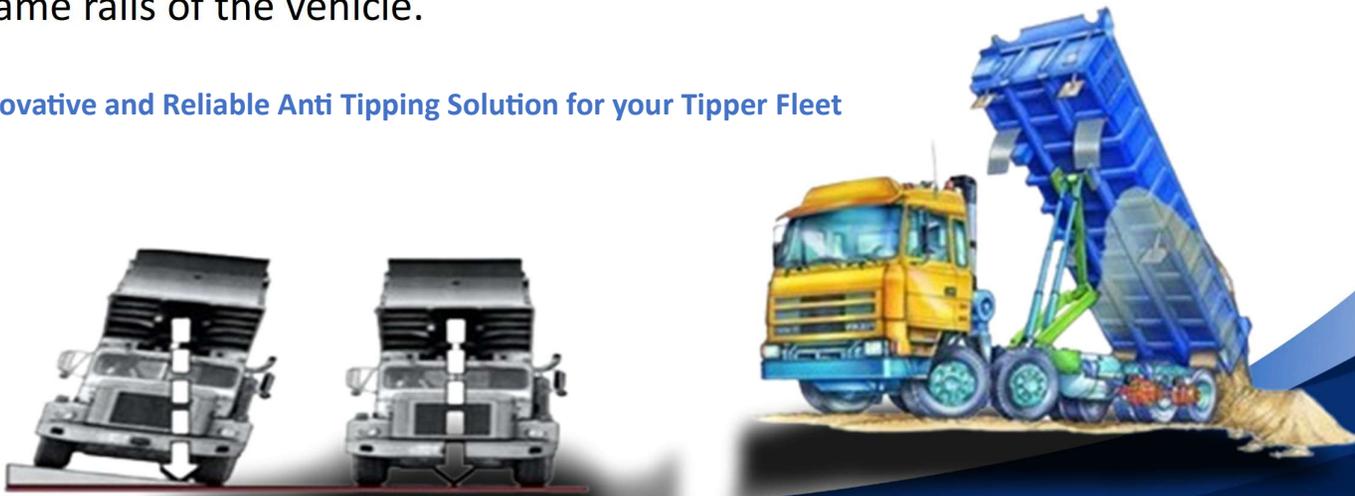
To lead in futuristic safety products that set new benchmarks in protection and performance.



Tipper Tilt Prevention System

The **Tipper Tilt Prevention System (TTPS)** is an advanced safety solution designed to significantly reduce the risk of tip-over incidents in dump/tipper trucks during tipping operations. Tip-over is one of the most critical hazards associated with tipper use, particularly when the truck body is in a raised position and the combined center of gravity of the body and load shifts outside the frame rails of the vehicle.

Safe, Innovative and Reliable Anti Tipping Solution for your Tipper Fleet



Our Solution



To ensure that the centre of gravity of the tipper body and load remains within the vehicle's frame rails during tipping operations, our **Tipper Tilt Prevention System** utilizes advanced **MEMS-based inclination sensors**.

These high-precision sensors continuously monitor the lateral and longitudinal tilt angle of the tipper body in real time while the box is in the raised position. The system is programmed with predefined safe tilt limits based on vehicle stability parameters.

When the measured tilt angle exceeds the allowable threshold, the system immediately activates a **hydraulic control valve**, automatically preventing any further lifting of the tipper body. This controlled intervention stabilizes the vehicle by restricting body movement before the centre of gravity can shift outside safe limits.

By actively maintaining the centre of gravity within the frame rails, the system effectively minimizes the risk of vehicle toppling, even under uneven ground conditions or during uneven load discharge.

This intelligent, real-time safety mechanism significantly enhances operational safety, protects equipment, and safeguards operators during tipping operations.

TO PREVENT THIS

**Our Anti TIP Over
System will help you**



Advantages & Benefits

- Economical and cost-effective safety solution
- Quick retrofit in approximately one hour
- Site-configurable tilt switch angles
- Easy to customize for different tipper models
- Prevents most tipping accidents
- Protects tipping cylinders from side-load damage
- Prevents damage to tipper body and hinges
- Reduces vehicle stress, extending chassis and axle life

System Hardware

- High-accuracy MEMS-based single-axis tilt sensor
- Automotive-grade wiring harness
- Hydraulic control valve
- Industrial-grade indication box

Technical Specifications



Parameter	Specification
Sensor Technology	MEMS-based Tilt Sensor
Measuring Axis	X Axis
Measuring Range	±180°
Accuracy	Static: 0.1° / Dynamic: 2°
Resolution	0.01°
Alarm Threshold	Site / User Configurable
Alarm Output	Single-line output
Power Supply	9 – 35 VDC
Operating Current	80 mA (Typical)
Frequency Response	100 Hz
Zero Temperature Drift	0.01° / °C
Vibration Resistance	> 2000 g
Operating Temperature	-40°C to +85°C
Protection Class	IP67
Housing Dimensions	145 × 60 × 40 mm
Mounting	Industrial / Automotive Grade
Compliance	Suitable for Harsh Mining & Construction Environments