3D-Drive Services in Logistics and Transportation:

On an anti-slip load platform, cargo (using Euro pallets, for example) can be positioned and subjected to simulated or real-world-measurement loadings.

Your benefits at a glance:
- Analysis of transport damage
- Optimization of packaging methods
- Reduction of damage costs

Other fields of application:
- Development and optimization of convenience features
- Tests of driver assistance systems
- Durability and strength tests (endurance runs)
- Simulations of sudden defects
- Reconstruction of accidents

Simulation Services and Tests on the Six-Axis Test Rig:
3D-Drive
Tests and simulations for reliable results.

Further information:
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3D-Drive Services for Tank Systems:

3D-Drive enables fuel system tests to be performed quickly and with accurate repeatability using simulated driving dynamics conditions.

One of the specialties of 3D-Drive is the capability of synchronous representation of ambient temperature and vacuum conditions vis-à-vis the motion profile of the platform.

Another benefit of 3D-Drive is the test facility’s explosion protection concept which allows the use of real-world fuels with or without an environmental simulation dome (ESD).

Comprehensive tank system trials!
At the Tank Testing Center in Garching near Munich TÜV SÜD Automotive’s experts also offer trials on complex fuel systems and components. These include fuel lines, connectors, delivery units and, of course, the complete tank system.

3D-Drive Test Rig – Technical Data:

The six-axis test rig consists of a platform with six-degree of freedom (comparable to a flight simulator) and a 2.90-meter-diameter chamber which can be air conditioned.

The interior of the chamber can be de-pressurized down to -400mbar, temperature loadings are possible between 0°C and 60°C.

The platform reaches frequencies of up to 10 Hz, linear speeds from -0.7m/s to +0.7 m/s and rotary speeds between -50°/s and +50°/s.

On the platform linear accelerations can be achieved between -20 m/s² and +20m/s², rotary accelerations between -500°/s² and +500°/s².

3D-Drive Test Rig Control:

The 3D-Drive Soft software enables the creation of individual profiles and virtual routes. Input data can be generated from real-world roads, using data acquisition during a transportation run, for example.

Various acceleration sensors are available for this purpose, such as:
- six-axis Automotive Dynamic Motion Analyzer (ADMA)
- compact three-axis acceleration sensors

The data recorded by sensors can subsequently be subjected to further processing, using 3D-Drive Soft, to generate time-lapse profiles, or for multiple repetition of particularly interesting sequences.

In addition, 3D-Drive Soft enables the connection of the six-axis test rig platform to numerous simulation tools, such as CarSim (Mechanical Simulation Corporation) or MSC.ADAMS.