

Crash Barrier Defprmtation Analisy

MPDB CRASH BARIER ANALYSIS

In 2020 Euro NCAP introduces the MPDB (Moving Progressive Deformable Barrier) Test. For the first time, the deformation of the crash barrier has to be scanned and evaluated with a 3D scanner



The Automotive industry is challenged with finding an easy, reliable, fast and cost-effective method to analyze and document the lifecycle of a crash test dummy

The application was tested in cooperation with car manufacturers, as well as private and governmental crash labs, and has proven itself as a solution to produce the results for EURO NCAP's new MPDB crash barrier tests.

THE NEED

This Solution Tool is an all in one solution to scan and evaluate the Crash Barrier in new Euro NCAP MPDB Frontal Impact Crash Test. It consists of:

- Mantis F6 handheld scanner,
- Mantis Echo Software to operate the scanner,
- TEC Tool - Crash Barrier Analysis to evaluate the barrier.

The workflow of scanning and evaluating the barrier is easy, user-friendly and the final result is available in minutes!



SOLUTION KEY FEATURES

- Alignment using 2D targets
- Automatic evaluation of deformation
- Export of results to Excel datasheets
- Illustrated presentation of

[WATCH THE FULL VIDEO](#)

TAILOR MADE SOLUTION

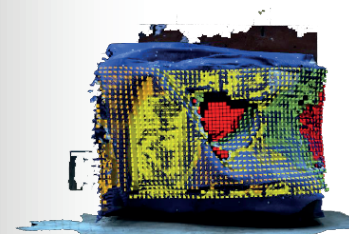
The application consists of a hardware and software bundle that produces the results via a streamlined workflow, without the need to change software or transfer data to another application.

SOLUTION ADVANTAGES

- Easy to transport and ready to use (set-up time <5 minutes)
- No preparations on the crash barrier necessary
- One software package for scanning and evaluating the crash barrier according to Euro NCAP protocol
- Fast scan of the barrier directly at the crash facility (<2 minutes scan time)
- Export of the official Euro NCAP Excel document as well as additional visualizations as PDF report
- Only approx. 30 minutes total time consumption

WORKFLOW

- PRE-CRASH
- Add 2D targets to barrier
- Scan barrier
- AFTER CRASH
- Scan barrier again
- Align both barriers
- Determine / Produce results



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CRASH TEST DUMMY SURVEY



COORDINATE SYSTEM TRANSFORMATION

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