

# Concept<sup>®</sup> - PROTECTION MECHANISM FOR TEST SYSTEM



## Functional Description:

During backlash of a free-flying test specimen, high energies occur.

The Concept Technologie developed and patented protection device for the pedestrian protection test system, prevents backlash of the test specimen onto the vehicle avoiding unwanted damage to launch mechanism components or the vehicle (secondary impact of the test specimen). A light barrier activates the catch flap after passing of the test specimen, (e.g. legform- according to EEVCWG17) and backlash is avoided via the catch flap. The tangential deviation of the catch flap simultaneously prevents the secondary impact of the vehicle.

Hereby expensive repairs to the test system, the repetition of tests and system downtimes can be avoided.

## FROM USER TO USER

As a user and system developer, we offer our customers our know-how.

### Benefits at a Glance :

- ✓ Cost savings by avoiding repairs to the system and test specimen.
- ✓ Larger investment protection due to system and specimen protection using only one system
- ✓ Easily upgradeable, also with external systems
- ✓ Able to synchronize with various test specimens
- ✓ Quick assembly, minimal required space

# Concept<sup>®</sup> - PROTECTION MECHANISM FOR TEST SYSTEM



www.concept-tech.com

## Technical Data of Safety Catch Mechanism:

Drive:	Spring brake
Trigger:	Laser light barrier
Closing Speed:	ca. 30 ms
Locking:	Electromagnetic, self-locking
Supply Voltage:	12V DC
Total Weight:	ca. 40kg

## Measurements of Safety Catch Mechanism:

Total Length:	ca. 1500 mm
Total Width:	ca. 1400 mm
Total Height:	ca. 1100 mm
Passage Opening:	ca. 400 mm

✓ The system measurements can be synchronized with the measurements of the respective test specimen.

## System Layout:

- 1 Stable base frame with two swing-doors
- 1 Impact cushioning via CF- cushioning element on the swing doors
- 2 Pre-stressed torsion spring to actuate the swing doors
- 1 Self-locking electromagnetic locking of the swing doors
- 1 Laser light barrier to activate the locking
- 4 Transport wheels for simple manipulation

