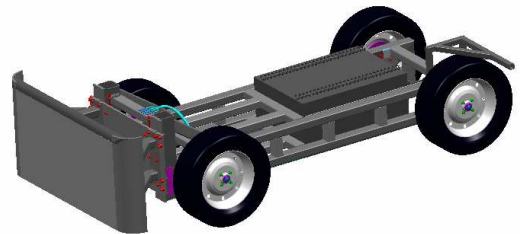
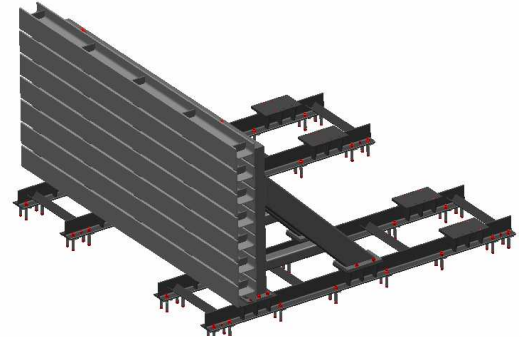
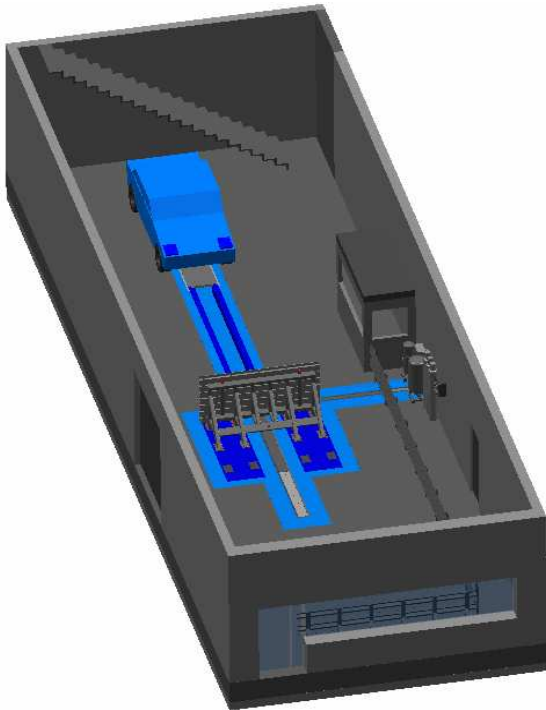


Concept[®] - Low Speed Crash Test System



Functional Description

This customer- friendly N₂ powered LS- Crash facility provides primarily a cost- efficient realisation of RCAR- tests/Allianz tests.

As a matter of course it is possible to realise Bumper tests according to ECE R42 and Low- Speed Sensor tests.

The facility is designed for vehicles with a maximum weight of 2.5 t and a maximum speed of 20 km/h. The vehicles, or the trolleys, will be accelerated up to the required velocity with the aid of a nitro driven piston, subsequently unlocked and free driven crashed.

Due to this Low Speed Crash Test System RCAR- Tests can be handled cost –effiicently by full availability of an additional full scale crash test facility.

FROM USER TO USER

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

Benefits at a Glance:

- ✓ High accuracy of measurement at a lower velocity.
- ✓ Reproduceable measurement result (Repeat accuracy typ. ± 0.2 km/h) by the Concept Software „Matrix“.
- ✓ A lotof Low- Speed tests can be handled cost-efficient without constraining any Fullscale Crash Facilities.
- ✓ Cost-saving, because of an additionally opportunity to carry out Bumper tests (ECE R42) and Sensor tests.
- ✓ Cost saving due to a Concept Turn Key Solution.

Concept® - Low Speed Crash System



www.concept-tech.com

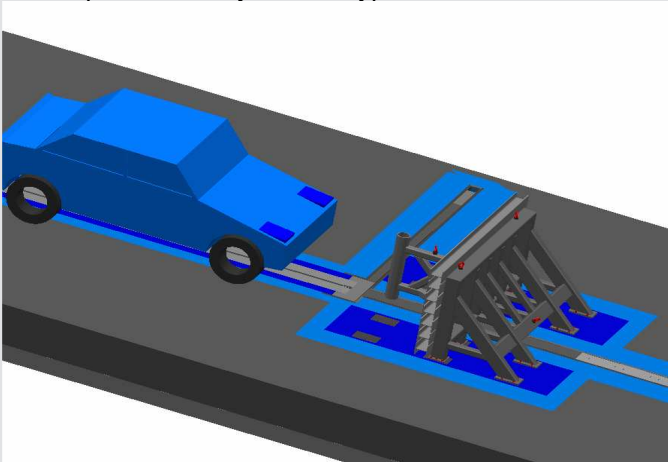
Technical Description:

- Cylinder Drive Medium: N₂
- Max. acceleration: 5.5 g at 20 km/h and 2.5t
- Max. velocity: 20 km/h
- Vehicle/Barrier mass: 800 – 2.500kg
- Cylinder stroke: 4.2 m
- Piston Diameter: 170mm
- Min. recommended roomdim.: l x b = 20x7 [m]
- working pressure: max. 16bar
- El. connected load: 2 kW (without illumination)
- Connected load for the light: mind. 15 kW

Experimental Demonstration:

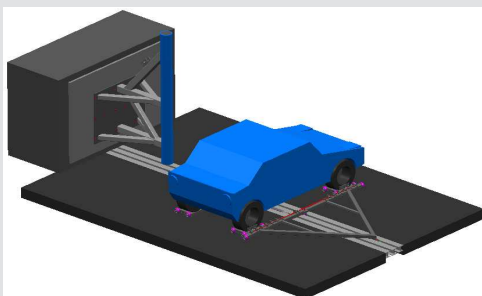
1.) RCAR Pole- Test

- Mass: 2.500 kg
- Impact velocity: 15 km/h (+1)
- Impact accuracy: typ. +/- 0.2 km/h



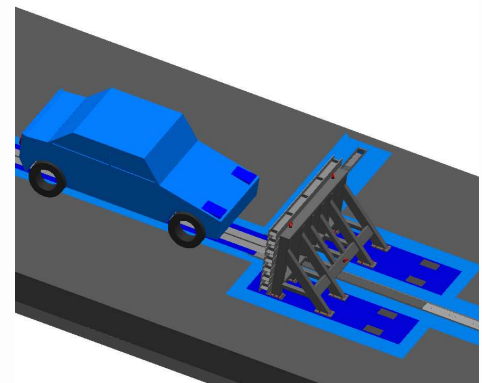
2.) Side Pole- Test

- Pole Diameter: 254 mm
- Impact velocity: max.30 km/h
- Impact angle: 90°
- Impact accuracy: ± 15mm
- Pole overall height: 150 mm

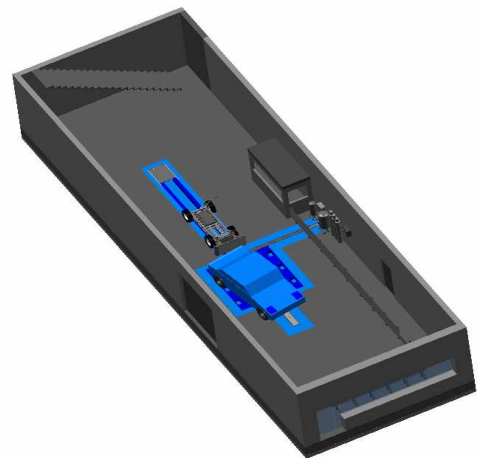


3.) Wall Impact

- Mass: 2.500 kg
- According to law: CMVSS 215 8 km/h
US Port 581 4 km/h
- Impact velocity: 10 km/h (+1)
- Impact accuracy: typ. +/- 0.2 km/h



4.) RCAR Heck- Crash



5.) RCAR Front Crash towards 10° barrier

- Mass: ca. 2.500 kg
- Impact velocity: 15km/h (+1) (2.5 mph)
- Impact angle: 10°
- Impact accuracy: typ. +/- 0.2 km/h

6.) Bumper Test ECE R42 and 49

- Mass: 2.500 kg
- v R 49: 4.02 km/h (+1) (2.5 mph)
- v R 42: 4 km/h (+0.25)
- Impact accuracy: typ +/- 0.2 km/h