



# Linear Impactor & Body Block Impactor Test System

- Best in class accuracy by high speed closed loop control
- Direct adjustment of speeds without any pretest required
- High availability and low maintenance costs through hydraulics-free design
- Low operating cost (\$ 1/Launch)
- Fast change between different launchers & tests (<30 min)

# Linear Impactor & Body Block Impactor Test System

## System Description

This Microsys Test System is customized for a variety of linear impact tests and can be refitted for additional load cases later.

## Basic System Specification

- Work and control medium: Technical nitrogen N<sub>2</sub>
- Supply pressure N<sub>2</sub>: up to 16 bar
- Control system: B&R
- Required power supply: 3-phase AC 2.5 kW
- Standard weight: approx. 2 000 kg

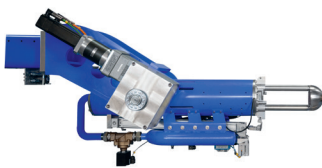
## System Performance: Productivity

The following experienced-based number of tests can be performed by a team of 1 system operator and 1 supporter within 8 hours:

- Linear impact test: 8 - 10 tests/day
- Body block test: 8 - 10 tests/day

(These numbers take into account the required time for changing test parts between two tests and the time needed for data acquisition and test set up - technically 1 test per minute is feasible)

## System Performance: Linear Impactor



- Mass of impactor: 4 kg - 40 kg
- Speed at impact: up to 45 km/h
- Accuracy of impact location: ± 3 mm
- Accuracy of speed at impact: < 1 %  
(on customer request down to) ± 0.2 km/h

## System Performance: Body Block Impactor



- Mass of impactor: 34 kg - 36 kg
- Speed at impact: 24.1 km/h
- Accuracy of impact location: ± 5 mm
- Accuracy of speed at impact: < 1 %  
(on customer request down to) ± 0.2 km/h

## Load Cases & Launcher Type

### Body Block

- ECE-R12
- ECE-R95
- FMVSS 203
- GB 11557



Launcher L

### Linear Impactor

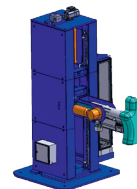
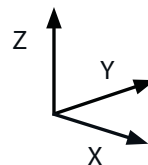
- ECE-R12
- FMVSS 203
- GB 11557
- FMVSS 222 (Kneeform impact)
- FMVSS 222 (Headform test)



Launcher L

\* according to the latest revision status

## Travel of Power System



- X-direction: 1 500 mm/accuracy < 0.1 mm
- Y-direction: fixed
- Z-direction: 1 500 mm/accuracy < 0.1 mm

## Control System & Data Analysis

Like all Microsys products the ASC launcher is controlled by the flexible and user friendly software „Unisoft“, which reduces the time and cost for training of technical personnel. Furthermore different configurations on customer request are possible. The control system consists of standardized components that are available all around the world and enables a fast and easy support workflow.

If used with the Microsys Universal Impactor Test System, all adjustments needed for the positioning of the system prior to the firing can be completed by means of a wireless remote control. The system adjustment is possible via two joy-sticks, mounted on the remote control itself.

## Certified Quality

The test system is certified by TÜV and will be delivered with the CE mark. The Linear & Body Block Impactor Test System is used by many customers for conformity of production testing, for vehicle engineering, self-certification and type approval.

As a full-range provider of engineering, simulation, testing and tools for safety development we speak exactly your language. This understanding can be felt in all our products and services.

The team of Concept Tech and Microsys, part of the Altran group, provides you with expertise and support worldwide.

Find more information about our products and services at [concept-tech.com](http://concept-tech.com) and [altran.com](http://altran.com).

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