

Servo-hydraulic accelerator sled system for non-destructive testing of vehicle components such as safety belts, seats, child seats, batteries or airbags.

- No special foundation required
- Installation on common industrial floor
- Minimal footprint – only 18 m x 2.2 m
- Complete integration of data acquisition system, lighting and many other components
- Fully factory pre-commissioned system
- Extremely fast installation – typically 3 weeks
- High test frequency – less than 10 min between tests
- Minimal maintenance costs – wear free brake system



Child Seat Tests	Seat Belt Tests	Battery Tests
<ul style="list-style-type: none"> <li>▪ ECE R44</li> <li>▪ ECE R129</li> <li>▪ FMVSS 213</li> <li>▪ ADAC frontal and side impact</li> </ul>	<ul style="list-style-type: none"> <li>▪ ECE R16</li> <li>▪ AK-LV106</li> <li>▪ FMVSS 208</li> </ul>	<ul style="list-style-type: none"> <li>▪ ECE R100</li> <li>▪ GB/T 31467.3-2015</li> </ul>
Seat Tests	Rear Impact Tests	Other Applications
<ul style="list-style-type: none"> <li>▪ ECE R80</li> <li>▪ ECE R17</li> <li>▪ FAR 25.562 (aircraft seat tests)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Whiplash (Euro NCAP, ANCAP, KNCAP, CNCAP, JNCAP)</li> <li>▪ FMVSS 202a</li> <li>▪ IIHS RCAR-IIWPG</li> </ul>	<ul style="list-style-type: none"> <li>▪ DIN ISO 27955 (securing of cargo)</li> <li>▪ ECE R144 (eCall systems)</li> </ul>

Table 1: CIS pulses, application examples (individual vehicle pulses on request)

## TECHNICAL SPECIFICATIONS

Max. force	0.8 MN
Max. speed	80 kph
Max. payload	1,500 kg
Max. stroke	1,200 mm
Max. acceleration	80 G
Max. jerk	15 G/ms
Pulse control	Servo valve
Power supply	45 kVA, 380...480 VAC, 50/60 Hz
Footprint (L x W)	18 m x 2.2 m

Sled platform dimensions (L x W)	2.20 m x 1.4 m Mounting grid 50 mm x 100 mm (M12)
Installation height (options)	1.97m (on grade) 1.5 m (below grade)
Number of trigger outputs	7
Time span between two tests	< 10 min
Typical speed deviation for CIS pulses (see table 1)	± 0.5 km/h
Typical acceleration deviation for CIS pulses (see table 1)	± 1 G (CFC60)

(Due to the inter-related nature of sled performance specifications, it may not be possible to simultaneously achieve each maximum. MESSRING technical experts can help you determine the feasibility of each pulse individually.)

- Scope of supply**
- CIS (Compact Impact Sled)
  - M=BUS Pro data acquisition system for 8 analog channels
  - Accelerometer (2000 G)
  - Control-PC and software

- Options**
- M=LIGHT LED lighting system
  - M=CAM high-speed cameras (on-/offboard)
  - M=BUS data acquisition system
  - Sled test fixtures, e.g. according to ECE R16, R129, R44, ADAC frontal or side impact
  - Low-G module for Whiplash test
  - Maintenance and calibration services