

Close to reality.

Accredited Crash Test Laboratory. Made in Germany.





Your centre of expertise for crash tests

Realistic accident reconstruction - controlled, flexible and reliable.

Founded in 2011 by Schimmelpfennig + Becke, crashtest-service.com GmbH is a service provider offering crash testing for accident reconstruction purposes and certification of vehicle restraint systems and road traffic support systems.

On our 30,000 m² crash test facility, traffic accidents are recreated and vehicle restraint systems tested on

the basis of current certification standards. Crashtest-service has been officially DAkkS (Germany's national accreditation body) certified to render such services since 2013.



Crash tests

A specialised team is available to carry out individual crash tests to reconstruct accidents as well as crash tests applying relevant standards to e.g. test vehicle restraint systems precisely, quickly and flexibly for you.



Crash test database

The world's largest crash test database for accident reconstruction use offers you a unique range of crash tests for visual comparison purposes which are cost-effective and quickly downloadable.



Biofidelic crashtest dummy

When it comes to an exact reproduction of movements, damages and injuries, the Biofidelic crash test dummy should be used. Our dummies are produced in our own laboratory at CTS using state of the art technology.



Technical services

Whether it's telemetric systems or lighting technology evaluations – our experts can respond to your technical highly complex guestions and work out solutions in cooperation with you.



Seminars and events

Crashtest-service offers regular seminars on accident reconstruction, traffic safety and claims settlement. Our crash test location can also be used for holding events.

Whether it's crash tests, individual technical services or seminars - crashtestservice has many years of experience in accident reconstruction. Our strengths aren't confined to the technical expertise of our engineers, physicists, technicians and mechanics but include the modular design of our crash test facility. This allows highly complex tests and test series to be carried out flexibly and promptly.

Accredited crash test facility

State of the art crash technology on 30,000 m²

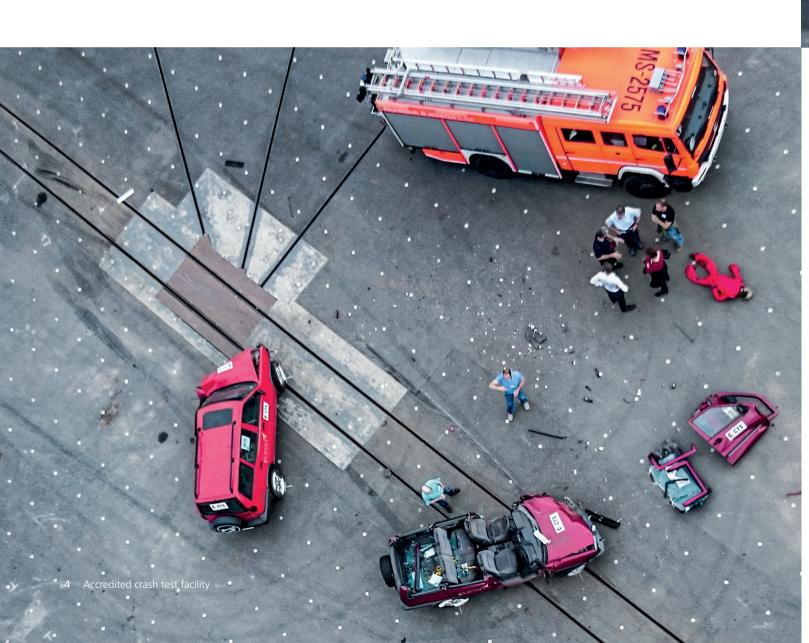
The crash facility was first built in 2011 and is among the world's largest offering comprehensive crash testing options. All vehicle classes - cars, motorcycles, cycles, heavy commercial vehicles (standardly up to 70 t) - can be tested, as well as vehicle restraint systems, road traffic support systems and vehicle barriers.

There are three crash test lanes on $30,000 \text{ m}^2$. Their lengths of up to 300 m permit tests at speeds up to 170 km/h.

In the centre of the facility is a 40 x 80 meter crash surface that can be used in crashes at varying angles.

The crash area can also be used to carry out tests of vehicle dynamics in e.g. skidding.

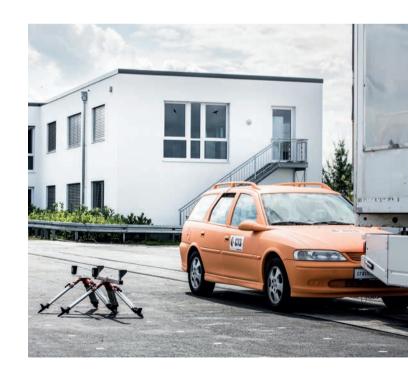
Tests can be carried out regardless of weather. The 750 m² indoor facility permits crash tests at speeds up to 65 km/h. Since entry is possible at both ends, tests featuring head-on collisions can be carried out.





Specifications:

- Crash test facility with an area of 30,000 m²
- Newly built crash test facility with state-ofthe-art technology
- 4 acceleration tracks and a mobile crash track for flexible and complex tests
- Test up to 170 km/h and 70 t
- Additional indoor crash test facility for performing crash tests in any weather
- Documentation of crash tests using the latest multimedia technology such as full HD videos at up to 1,000 fps
- Determination of relevant physical parameters using the latest measurement technology



Individual crash tests

Reconstruction of accidents down to the last detail

Exactly what happened? What damage was done? These and other questions are answered by individual crash tests.

Accidents at up to 170 km/h and 70 t can be recreated on our facility. Prompt performance of crash tests, detailed documentation and the usability of the results are the main emphasis here. Crash tests are rendered, analysed and handled by a team of experienced engineers, physicists, experts, technicians and mechanics.

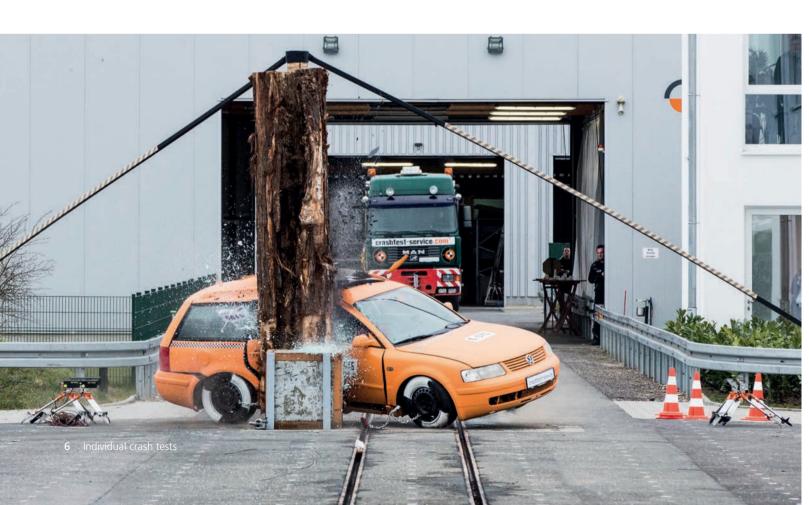
You receive complete digital documentation of your crash test, which presents the actual accident in a clear, multimedia and interdisciplinary way.

This makes utilisation of the data for e.g. legal, insurance and expert purposes feasible. Pre- and post-

crash photos, crash videos and graphically prepared measurement data make reliable evaluation of an accident and the damage involved by means of visual comparison possible.

Use of the data in our crash test database and further sale of crash test vehicles keeps costs as low as possible for you.

Take a look at crashtest-service.com to gain an impression of the range of our services.





- Crash testing of two-wheeled vehicles, cars, HGV's, agricultural vehicles, trailers etc.
- EES tests
- Tests with crash test dummies (human and animal)
- Airbag tests
- Perceptibility tests (e.g. in hit and run cases)
- Tests investigating general liability claims
- Clarification of insurance fraud cases
- Tests involving accidents with mechanical technical equipment
- and much more



Standard crash tests

Crash tests employing standards

Crashtest-service.com GmbH has been an accredited test lab specialising in performing crash tests applying relevant standards of vehicle restraint systems, guard rails, vehicle barriers and road traffic support systems since 2013.

- Guard rail tests (e.g. concrete and steel) per EN 1317
- Tests of vehicle barriers such as bollards, barriers, wedges etc. per PAS 68, ASTM F2656, IWA 14-1
- Testing road traffic support systems, e.g. traffic signs, lamp posts, traffic lights, speed measurement devices etc. per EN 12767





The test lab requirements in Article 43 of the German Construction Product Regulation are met.

You will receive complete written and digital documentation of the results presenting full details in multimedia format in a way all target groups and committees can follow. Test data preparation to the requirements of applicable standards means it can be used in the associated certification and approval processes and their successful completion.

An impression of our crash tests applying applicable standards can be found at crashtest-service.com.

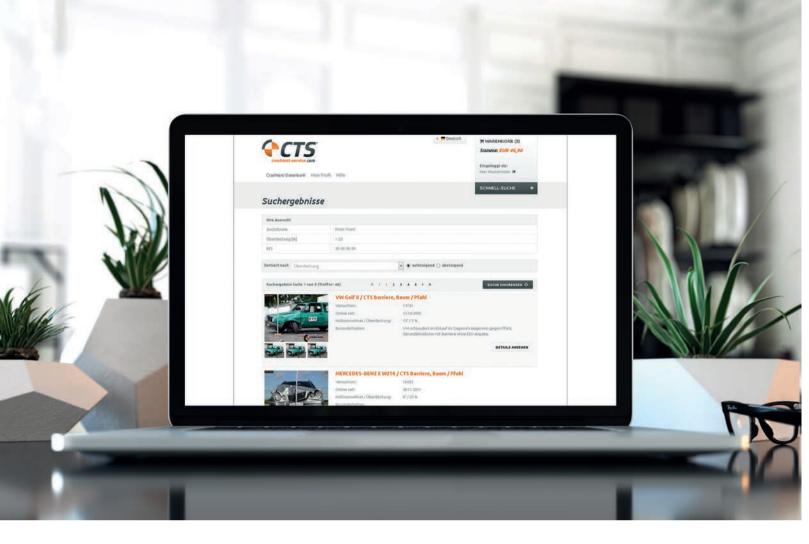
Norms

- EN 1317
- NCHRP Report 350
- MASH
- EN 12767
- BSI PAS 68
- ASTM F2656
- ASTM F2656/F2656M
- IWA 14-1

Technical Guidelines

 Police Technical Institute (PTI) at the DHPol: technical guideline (TR) – mobile vehicle barriers





The crash test database

Online access to more than 8.000 tests

The crash test database gives you access to the world's most comprehensive traffic accident reconstruction database. It gives experts, accident analysts and insurers a powerful tool that provides them with proven information on virtually all conceivable road traffic accident scenarios and their consequences quickly and economically. The entire database of more than 8,000 tests can be accessed in minutes.

It is kept up to date - including with data from crash tests carried out by our cooperation partners. The currency and wide range of crash test data on popular vehicles is thus guaranteed..

How it works:

Just select exemplary and validated collision parameters, damage photos, videos, measurement diagrams and other multimedia with a mouse click and thus increase the value of your expertise and arguments with well founded information. The professionally prepared test data and the self-explanatory search engine make your research easy and gives you useful results promptly.

- Crash testing of two-wheeled vehicles, cars, HGV's, agricultural vehicles, trailers etc.
- EES tests
- Tests using crash dummies (human and animal
- Airbag tests
- General insurance claim tests
- Speeds, EES values, delta v values, etc.
- Photographic evidence of vehicle damage, final positions, etc.
- Video documentation in PDF and/or AVI format
- Metrology graphs and dimensional diagrams
- Sound measurements

Our cooperation partners:

- Allianz Zentrum für Technik
- ARC-Network
- AXA
- Dynamic Test Center
- Winterthur
- and many more



Biofidelic crash test dummy

The new cost-effective dummy – exclusively available at CTS

In times of modern accident reconstruction, crash test dummies are frequently used in crash tests.

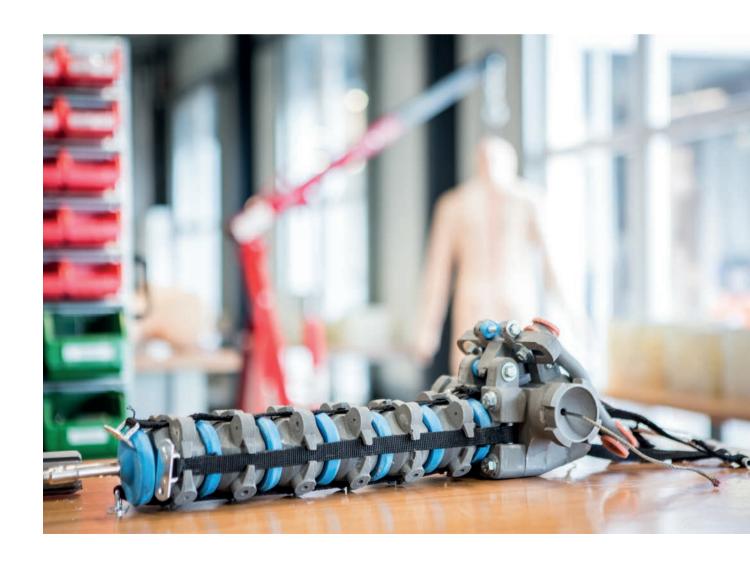
In the case of a precise reconstruction of motion sequences, damages or injuries, the Biofidelic crash test dummy should be used in the future. These Biofidelic crash test dummies are constantly being developed in cooperation with the HTW Dresden and the TU Berlin under the supervision of Prof. Dr. Lars Hannawald, Dr. Michael Weyde and Prof. Dr. Florian Kramer and are produced using the latest state of the art technology in a specially designed dummy laboratory at CTS.

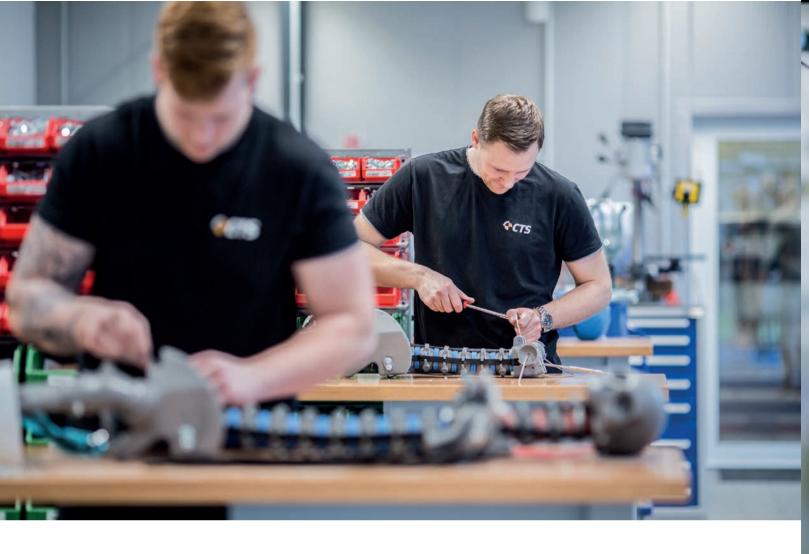


The special characteristics of the Biofidelic dummy, in particular the comparability with the real human being, are a result of the special construction method. All materials used conform in their physical characteristics optimally with that of the "components of the real human being". Thus, for example bone density and bone structures resemble in detail those of the human skeleton. Due to the similar body density construction to that of the real human being, collision related damages can be caused, e.g. on vehicles much more realistically than previously possible with dummies made of steel or plastics. Furthermore, physicians can now directly relate the real injuries of accident parties involved to those of the damages of the Biofidelic dummy used.

Through in-house production, it is possible to produce individual Biofidelic dummies as well as standard Biofidelic dummies. Therefore, for example, body weight and body dimensions can be tailored exactly to the requirements of the customers' case.

Moreover, the Biofidelic dummy can be fitted with extensive measurement technology. Therefore, e.g., collision-related acceleration data or acting forces can be used to answer specific questions. We would be happy to provide you with an individual offer tailored specifically to your requirements.





Areas of application:

- Due to our in-house production, it is also possible to obtain only individual body parts, for example for the testing of safety clothing
- In the same way, the Biofidel crash test dummies, built using the human body as a basis, can be used for detonation tests or mine trials (e.g.: STANAG 4569).
- The Biofidel crash test dummies can also be used in the inspection of rollercoasters or other amusement park equipment.
- In addition, the crash test dummies are particularly suitable for fire brigades and disaster control as practice objects, for example in the field of "Search and Rescue".
- The Biofidel dummy also offers numerous possibilities for application In the areas of work safety and product liability due to its design.
- The biofidelic motion behaviour characteristics allow the dummy to be implemented in autonomous driving validation tests
- Applicable in the area of life cycle and vibration tests / vibration testing
 / human vibration



Technical services

Telemetrics, lighting technology etc.

Profit from the comprehensive technical infrastructure and know-how in accident reconstruction. Crashtest-service provides support in the form of many services including developing telemetric systems, lighting technology evaluations for court expertises etc. Our experts would be happy to find answers to any technically extremely complex problems you may have together with you.

Our test facilities, technical equipment, software tools and efficient IT structure can also be used to assist in doing so.

Telemetric systems

Telemetric solutions nowadays are increasingly used to detect accidents and advise of them automatically. We offer support in developing telemetric systems and software solutions in particular that are able to detect accidents and e.g. classify them by severity.

Lighting technology evaluations

Detailed lighting technology evaluations of digital photos gives you a well founded and verifiable overview of actual lighting conditions prevailing in various accident situations. Our analyses, for which we can precisely reproduce virtually any situation in case of doubt, ensure clarity and certainty in disputed cases.





Seminar and event programme

Expert knowledge for your day to day work

Crashtest-service offers comprehensive and regular seminars on accident reconstruction, traffic safety and claims settlement.

- Specialised accident reconstruction seminar for district attorneys, judges, traffic law lawyers and police officers
- Specialised seminar on accident reconstruction for experts
- Specialised accident reconstruction seminar for insurers
- Münsteraner crash day for all those interested

Reputable lecturers from both practical and research fields ensure a high degree of relevance to practice as well as state of the art standards. The main emphases are recreated in reality on our crash facility and then discussed in plenum.

The current seminar programme can be found under www.crashtest-service.com/en/seminars/

Seminars and conferences tailored to your needs are also available. Alternatively, our crash test facility can be booked as event locations with authentic spectacular live demos.



Team

Department contact information

Our team of specialists consists of engineers, motor vehicle mechatronics technicians and IT-experts. Our employees have years of experience in their fields of expertise and bring with them the highest level of competence and know-how.



Dipl.-Ing. Peter Schimmelpfennig Managing Partner (CEO)

Phone: +49 (0) 2506 / 70 990 70 Fax: +49 (0) 2506 / 70 990 99 p.schimmelpfennig@crashtest-service.com



Dr. rer. nat. Gerrit Reglitz Head of Dummy Production

Phone: +49 (0) 2506 / 70 990 78 Fax: +49 (0) 2506 / 70 990 99 reglitz@crashtest-service.com



Dipl.-Ing. Ralf Bührmann Head of Test Department

Phone: +49 (0) 2506 / 70 990 73 Fax: +49 (0) 2506 / 70 990 99 buehrmann@crashtest-service.com



B. Eng. Michel Osterkemper Head of Technical Department / QMR

Phone: +49 (0) 2506 / 70 990 83 Fax: +49 (0) 2506 / 70 990 99 osterkemper@crashtest-service.com



Ulrich Brunner Head of IT

Phone: +49 (0) 2506 / 70 990 70 Fax: +49 (0) 2506 / 70 990 99 it@crashtest-service.com



Kirsten Fichner

Head of Finance and Human Resources

Phone: +49 (0) 2506 / 70 990 74 Fax: +49 (0) 2506 / 70 990 99 buchhaltung@crashtest-service.com



Felix Mackel Head of Administration

Phone: +49 (0) 2506 / 70 990 79 Fax: +49 (0) 2506 / 70 990 99 mackel@crashtest-service.com



Pia-Maria Neumann

Marketing Representative

Phone: +49 (0) 2506 / 70 990 82 Fax: +49 (0) 2506 / 70 990 99 neumann@crashtest-service.com



Elena Lüdders

Secretery

Phone: +49 (0) 2506 / 70 990 70 Fax: +49 (0) 2506 / 70 990 99 info@crashtest-service.com



Mandy Stoll

Employee Eventmanagement

Phone: +49 (0) 2506 / 70 990 761 Fax: +49 (0) 2506 / 70 990 99 info@crashtest-service.com





Amelunxenstraße 30 48167 Münster

Phone +49 (0) 25 06 70 990 70 +49 (0) 25 06 70 990 99 Fax

info@crashtest-service.com www.crashtest-service.com



