

DSD

Dr. Steffan Datentechnik
L i n z - A u s t r i a

Advanced Side Impact System

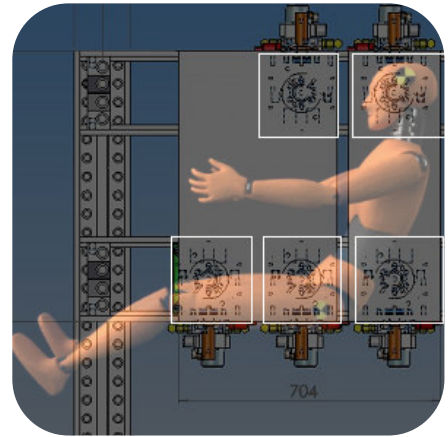


- Controlled intrusion
- Controlled structure deformation
- Realistic reproduction of real crash incl. the change of the door gap
- Few prototype parts necessary
- Easy and fast to setup
- Easy and flexible positioning of the intrusion areas

What it is

ASIS is the world's first side impact simulator which can reproduce multiple intrusion areas at the same time to provide more realistic results than any other simulator system before. It allows a much more detailed view on the crash phenomenon without causing high costs.

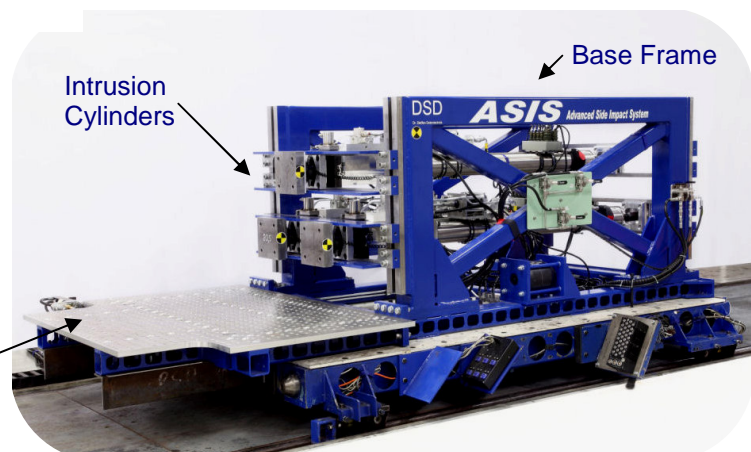
ASIS is a powerful tool that can be used in a very early phase of car development. The system is designed to deliver informative results about quality of door panel, airbag, foams, plastics and other parts of the inner cabin of a car which are relevant for the occupant's safety. Especially these parts are still very difficult to simulate by FEA which makes the ASIS an essential test system in any automotive safety lab.



How it works

Air pressure up to 200 bar in a cylinder is accelerating a stable ram. The acceleration of the ram is modulated by hydraulic brakes that are controlled by an ultra fast valve. Therefore acceleration, speed and way are controlled very precisely – for each single cylinder!

Mounting plate for seat fixation



DSD provides two types of ASIS:

An On-Sled and a Static version.

The On-Sled version is completely seated on an acceleration sled system. The **ASIS** will be shot together with the sled and the door actuators are reproducing the relative intrusion. The Static version is delivered with an own, separated seat sled while the door actuators are creating the absolute stroke of intrusion. In both cases the sled is simulating the movement of the seat/car body.

Facts

Number of cylinders	up to 9
Standard force/cylinder	60 kN or 120 kN
Max. acceleration	150g
Standard stroke	on sled: 400mm, static version: 600mm
Min. distance between two intrusion areas	225mm