FORCE APPLICATION MACHINES

End–of–line testing and calibration of PODS

FEATURES

Flexibility for future seat types and Occupancy Classification Systems

On-line or off-line machines

Multi-model support

BENEFITS

- High-precision seat calibration to increase passenger safety
- Fast and exact tests in a controlled environment
- Full traceability of all seats

APPLICATIONS

Quality assurance of car seats

Function test and calibration of seat occupancy mats

Sorion has many years' experience in the development of force application machines (FAM) that are used in the assembly of automotive seats.

The continuous development and innovation of car seats with regard to safety and comfort and the legal requirements of **Passive Occupant Detection Systems (PODS)** permanently increases testing requirements in terms of creating flexible and extensive test procedures.

On-Line Force Application Machine

A Force Application Machine (FAM) provides a controlled environment to perform an end-of-line calibration test on the safety relevant occupant classification system components of an automotive passenger seat.

Sorion has developed one of the most advanced FAMs available in the world, having a number of innovative features, offering:

- Multi-model support
- High accuracy and flexibility
- Calibration of OCS and ODS equipped seats
- Flexible for future seat types and Occupancy Classification / Detection Systems

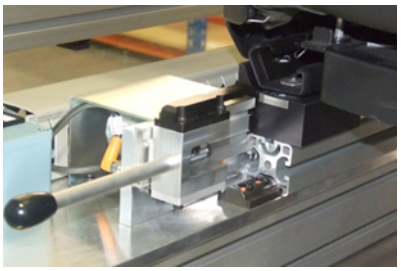
The car seat is positioned in the test cell and then automatically calibrated by moving the adjustable elements of the seat and by applying a predetermined load pressure via a Seat Butt-Form.

The calibration results are saved to the Orion™ database that allows viewing of the stored data via a web browser from anywhere within your organisation.

Sorion's latest generation of FAMs are available as both off-line and on-line machines.

OFF-LINE FAM

These machines are designed for **lower volume manufacturing and rework** and have a slide out fixture onto which the seat is placed and locked into position. The fixture is then slid in and the calibration process commenced.



ON-LINE FAM

These machines are designed for **higher volume operation** and are integrated into an assembly track.

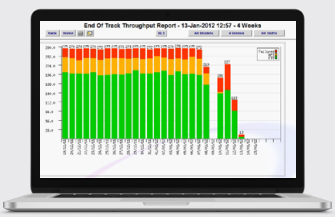
The seats are fed into the FAM by the track system and the calibration and traceability process is automatically initiated. Upon completion of the calibration process the seat is released and passed forward along the assembly line.

INTEGRATION

The test process is fully controlled by Sextans-RT software with all results being forwarded to an Orion™ database to provide traceability of all processes.

Data is seamlessly transferred to our traceability database Orion™ to provide **quality assurance and performance statistics** geared to manufacturing requirements.

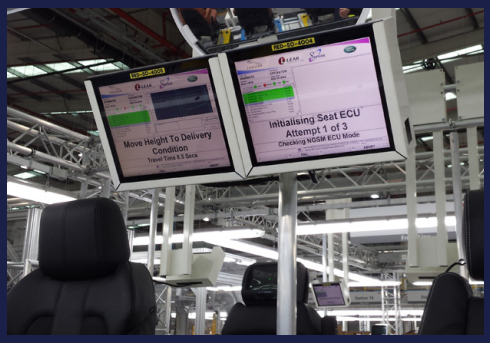
Sextans-RT



Orion™

THE SORION SOLUTION

FAMs can correctly test the operation of an ODS (IEE) mat



The calibration process is managed by Sextans

The force unit applies a predetermined load pressure

Humidity network integration

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