

**Sample Transfer Shuttle**  
**for ZEISS FE-SEMs and SEM/AFM hybrid systems**  
Protect your sample from air exposure

# The Sample Transfer Shuttle: Increase of sample reliability

## Sample Transfer Shuttle for ZEISS FE-SEMs

Protect your sample from air exposure

> [In Brief](#)

> The Advantages

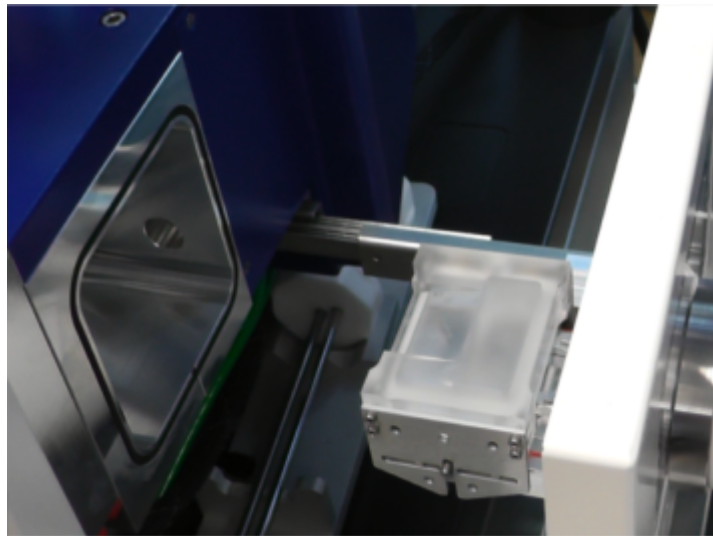
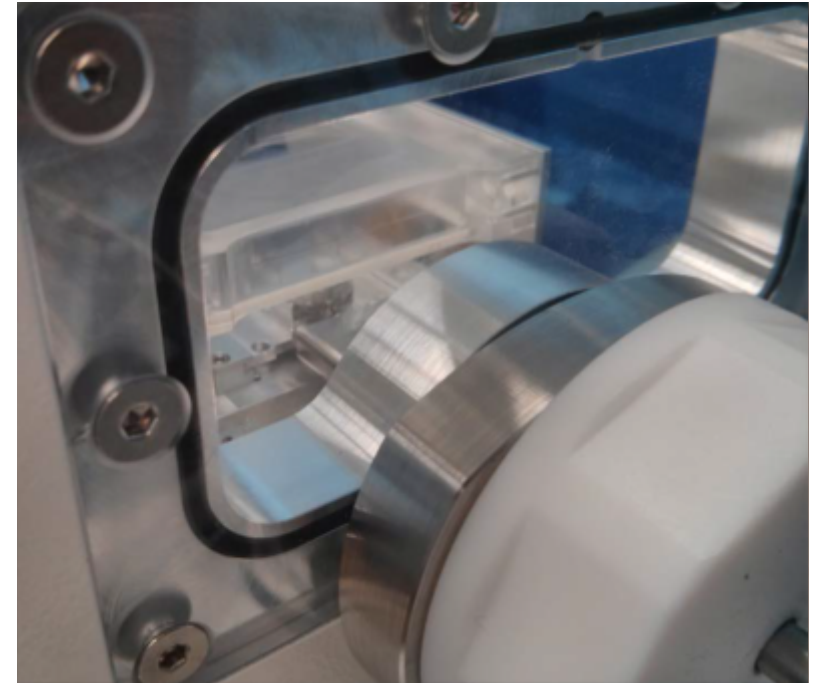
> The Applications

> Contact

Protect your sample, which should not be exposed to air, by using the Sample Transfer Shuttle.

Transfer your sample easily and safely in vacuum or in an inert atmosphere between the SEM and the facilities for sample storage and preparation, e.g. a glovebox.

The Sample Transfer Shuttle is available for nearly all ZEISS FE-SEMs equipped with a ZEISS airlock. Already existing systems can be updated.



# The Sample Transfer Shuttle: Simpler. More Intelligent. More Integrated.

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### Simple handling

Infrared remote control for opening and closing the Sample Transfer Shuttle in the SEM airlock or in the preparation facility like glovebox, glovebags/inert gas sample bags

Qualified system for

- \* battery and fuel cell research,
- \* thin or etched film investigations,
- \* organic electronics,
- \* some sort of semiconductors,
- \* hydrophilic crystals and many more, i.e. for all surfaces which should be protected from oxidation, corrosion, moisture, contamination, etc

### Intelligent Solution

Sample transfer between glovebox and SEM is performed either in vacuum or in an inert gas atmosphere

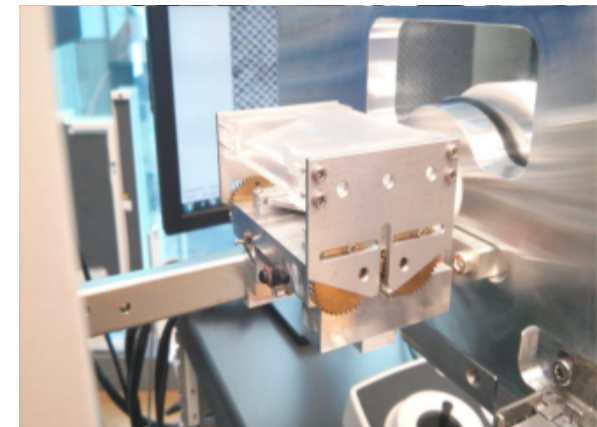
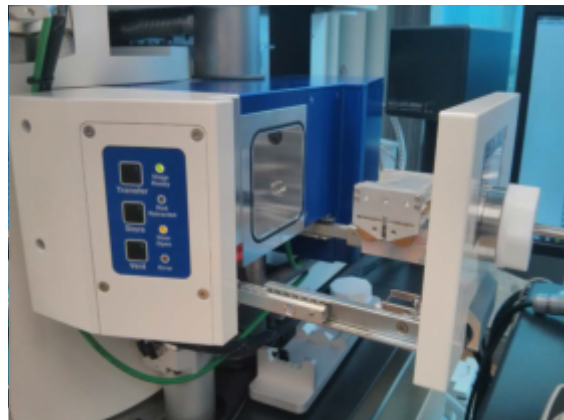
Sample Transfer Shuttle remains in the airlock. Only the sample holder is moved onto the SEM stage, thus full problem-free stage maneuverability and no shadowing by the shuttle is guaranteed

Sample Transfer Shuttle is locked in and out through the airlock, thus there is no need to open the door of the SEM main chamber

### Fully integrated system

Available for nearly all ZEISS SEMs equipped with a ZEISS airlock

Update of existing systems is possible without exchanging the airlock or SEM stage



# Your Insight into the Technology Behind It

## Sample Transfer Shuttle for ZEISS FE-SEMs

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### Sample Transfer Shuttle

The Sample Transfer Shuttle is a small standalone container which allows the transfer of a sample holder from a glovebox to the SEM under defined air conditions.

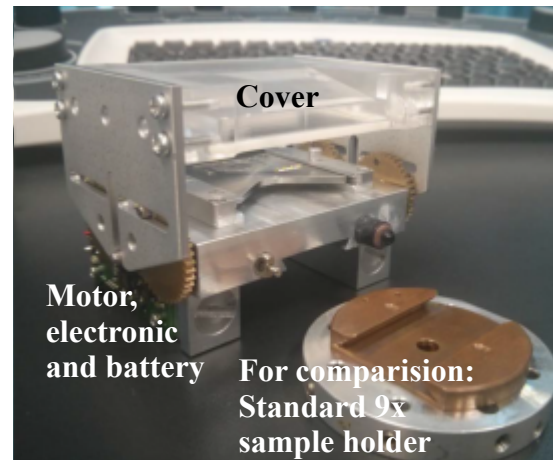
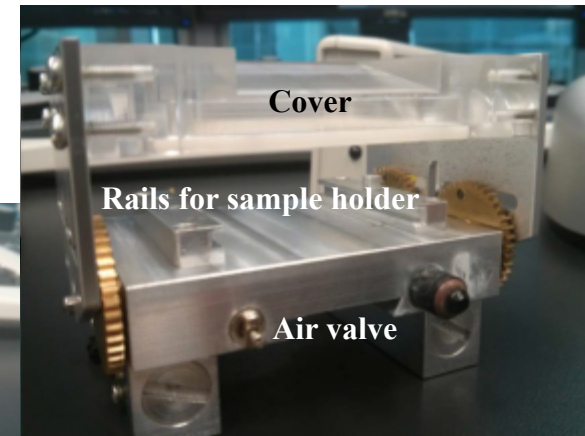
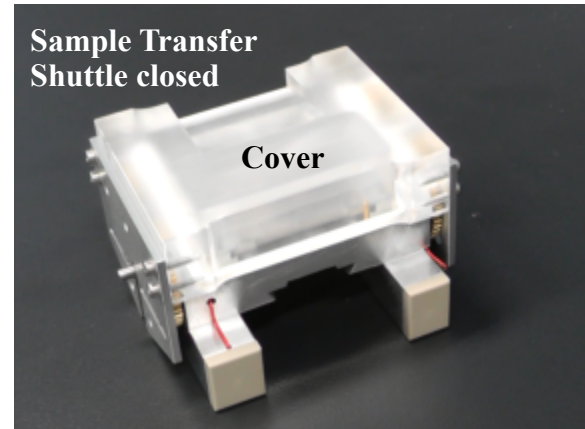
It works fully autonomously, because it has its own electronic and battery. So, no external power source or feedthroughs into the SEM chamber are needed.

The opening and closing of the Sample Transfer Shuttle is performed by infrared remote control.

The shuttle chamber can be filled with an inert gas atmosphere or pumped to vacuum by a manual valve.

Samples can be mounted either to standard SEM sample plugs (max. sample size 10 mm x 10 mm x 2 mm) or to the provided transferable holder, also used in the SEM-AFM, (max. sample size 10 mm x 10 mm x 6 mm).

Sample Transfer Shuttle closed





# The Sample Transfer Shuttle at Work

## Sample Transfer Shuttle for ZEISS FE-SEMs

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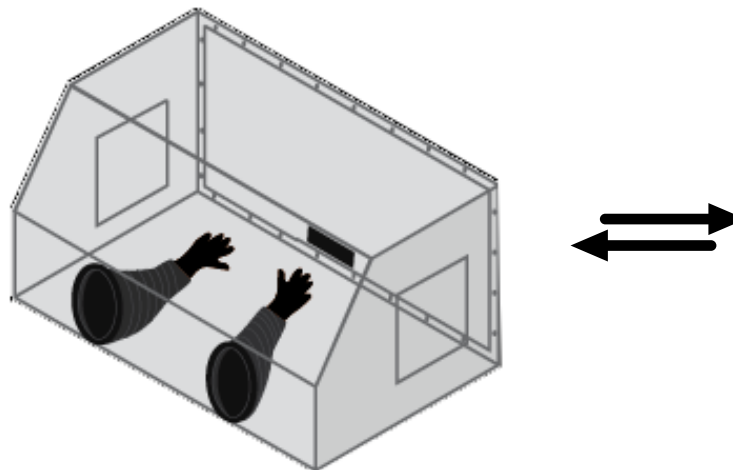
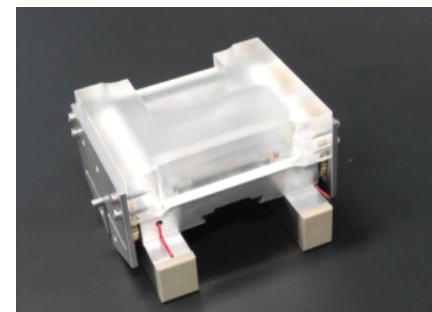
### Transfer your sample easily and safely between SEM and glovebox

In the glovebox or in any other inert gas environment for preparation or storage, the sample is mounted onto the sample holder. After opening the Sample Transfer Shuttle, the sample holder can be inserted into the shuttle. And the shuttle has to be closed.

The opening and closing of the Sample Transfer Shuttle is done by remote control from outside the glovebox.

Now, the Sample Transfer Shuttle can be locked out of the glovebox and mounted into the SEM airlock.

After pumping the airlock to vacuum, the Sample Transfer Shuttle is opened by remote control, and the sample holder can be moved to the SEM microscope stage, using the standard ZEISS transfer rod, while the Sample Transfer Shuttle remains in the airlock.



# The Sample Transfer Shuttle: A high quality product

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