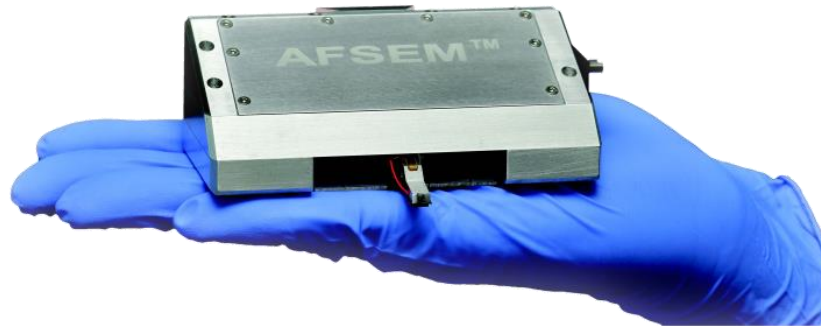


# AFSEM™ — SEM compatibility list

AFM integration into SEM



# General integration considerations

Integration is always customer-specific.

Images of the SEM from the outside (to see the additional equipment that is already attached) and from the open chamber (to see the chamber size and the stage) are key to validate the integration and provide detailed information.

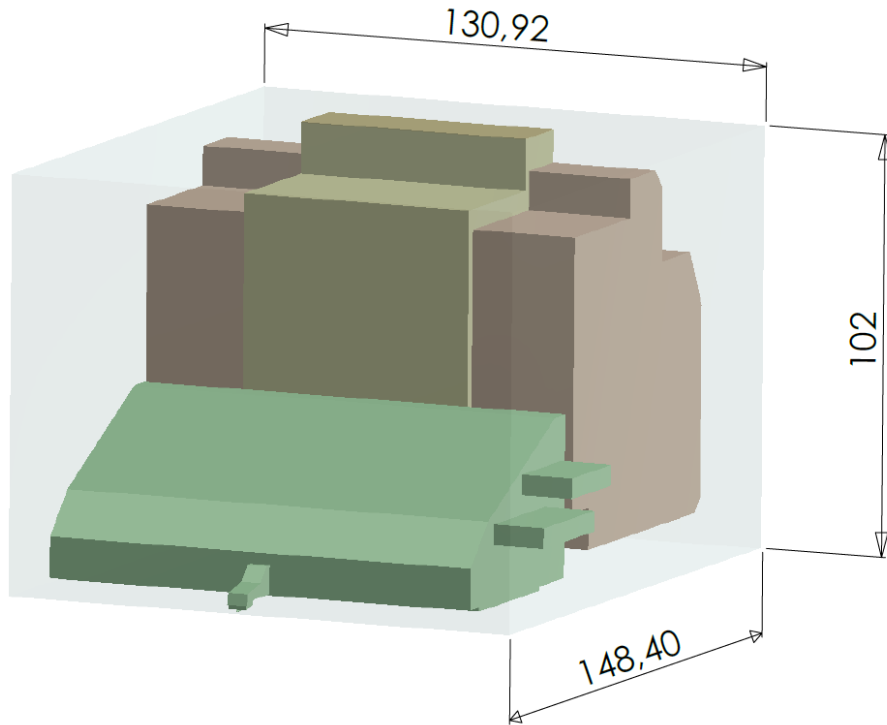
If customers are using load-lock systems to exchange their samples, they may want to keep the SEM door closed and AFSEM integration might be more challenging.

In general, integration is not possible in table top SEMs since the chamber is too small.

On the following slides:

- A. Required space in the SEM
- B. Suitable for integration
- C. Integration possible → requires discussion with Nanosurf/GETec
- D. Integration impossible

## A. Required space in the SEM



**Dimensions of AFM scanner and stage, including the whole range from the stage's min – max positions in all axes, and the connector dimensions at the side**

**In addition, an SEM-specific adapter is needed to mount the AFSEM**

## B. Suitable for integration

FEI Helios FIB

FEI Quanta 200 3D (Dual-beam)

FEI Quanta 200, FE- ESEM

FEI Quanta 3D, FEG FIB-SEM

FEI Quanta 600 FEG

FEI Quanta Cryo SEM

FEI Quanta 450, FEG – ESEM

FEI Nova Nanolab

FEI Nova NanoSEM 230 FE-SEM

FEI Nova NanoSEM 450 FE-SEM

FEI Nova 600 (Dual-beam)

Philips XL30 ESEM (now FEI)

Philips XL40 (now FEI)

Zeiss LEO 982

Zeiss Crossbeam 340

This list is not exhaustive

# C. Integration possible

Zeiss EVO 40XVP

Zeiss EVO 50

Zeiss EVO LS15

Zeiss Sigma VP 3view

Zeiss Sigma VP FEG SEM

Zeiss ULTRA Plus

Zeiss Supra 55VP

Zeiss Auriga FIB-SEM

Zeiss NEON 40EsB FIB-FESEM

Zeiss LEO 1530 FEG SEM

FEI Teneo Volumescope

FEI MLA 650

FEI Verios XHR SEM

Tescan VEGA 3

Tescan MIRA 3 FESEM

(LM, XM, GM chambers seem big enough)

JEOL Neoscope JCM 500

JEOL 840 SEM

JEOL JSM 5410 LV

JEOL 5800 LV

JEOLJEOL JSM 6010LV SEM

JEOL JSM 6100 SEM

JEOL 6400

JEOL JSM- 6480

JEOL 6500F

JEOL 6510LV SEM

JEOL JSM 6610 SEM EBSD/EDS

JEOL 6700F FESEM

JEOL JSM 7000F FESEM high resolution

JEOL 7001S SEM

JEOL 7001F FESEM

JEOL JSM 7100F

JEOL 8530F microprobe

This list is not exhaustive

# D. Integration impossible

Philips XL20 SEM (now FEI)

JEOL Neoscope JCM 5000

JEOL 840 SEM

Hitachi S3400

Hitachi SU3500

Hitachi S4300 SE/N, Field Emission (FESEM)

Hitachi S4700 FESEM

Hitachi SU-70 FESEM

This list is not exhaustive