

Introducing the ASPEX

EXplorer^x

Powered by OmegaMax™



ASPEX EXplorer^x is a laboratory SEM in an industrialized package equipped with OmegaMax EDX technology for particle identification

- Integrated electron beam scan ...> Count particles faster
- ASPEX OmegaMax EDX technology ...> Collect chemistry faster
- Perception 2 software ...> Easy to operate
- Patented filament and column liner ...> Minimize downtime

お問い合わせ先：

極東貿易株式会社 新素材部機能資材課

〒100-0004東京都千代田区大手町2-2-1

TEL 03-3244-3755

URL <http://www.kbk.co.jp/>

FEI Company (formally ASPEX Corporation)

175 Sheffield Drive, Delmont, PA 15626-1723 – USA

p: 724.468.5400 f: 724.468.0225

w: <http://www.fei.com/industrial-manufacturing/>

Detector

- Quad BSED and SED

Magnification

- 7x - 300,000x

Accelerating voltage

- 0.5 to 25kV

Beam path column liner

- Pre-cleaned disposable column liner system ¹

Electron source

- Pre-aligned whenelt assembly, pre-conditioned disposable filament ¹

Vacuum system

- High-vac and variable pressure for non-conductive samples up to 0.75 Torr

Vacuum pump

- Rotary vane or scroll pump and turbo molecular pump (included)

Vibration isolation

- Built-in vibration damping ²

Image resolution

- 13 nm ³

Evacuation time

- < 180 seconds to high vacuum ⁴

Vacuum after 8 hours pumping

- Chamber vacuum (high) <5e⁻⁶ Torr⁵

Standard chamber

- 76 x 96 mm XY (drawer-type stage)
- 76 x 96 mm XY (drawer-type stage), 25 mm Z
- 51 x 89 mm XYR (drawer-type stage)

Maximum sample size XY stage

- 184mm x 235mm x 82mm or 7.25" x 9.25" x 3.25" (W x L x H)

Maximum sample size XYZ stage

- 184mm x 235mm x 63.5mm or 7.25" x 9.25" x 2.5" (W x L x H)

Maximum sample weight

- 4.54kg/ 10lbs.

Maximum sample size XYR stage

- 5 x 47mm x 12mm | 10 x 25mm⁶

Relocation repeatability

- 10 micron (X and Y)

Room temperature

- 51° to 80° F (10° to 26.6° C)

Humidity

- 20% to 80% (non-condensing)

Power source

- 100 - 120 VAC at 15 AMP max or 220 - 240 VAC at 7.4 AMP max

PC & console control system

- Integrated into SEM
- Windows XPe operating system
- 500 GB hard drive, 2 GB RAM, 2 x ethernet port
- Two 19" LCD monitors
- 110 VAC or 230 VAC power source

User Interface

- Perception ⁷

Microanalytical performance

- OmegaMax - ultra thin window
 - 5sq mm, 130 eV⁸, 3,000 CPS/ nA⁹
 - 10sq mm, 132 eV⁸, 6,000 CPS/ nA⁹
 - 30sq mm, 135 eV⁸, 15,000 CPS/ nA⁹
- OmegaMax - beryllium window
 - 10 sq mm, 132eV⁸, 6,000 CPS/ nA⁹
 - 30 sq mm, 132eV⁸, 15,000 CPS/ nA⁹

Lightest element detection

- Boron for ultra thin window

EDS file format

- TIFF, ESMA, TXT, and CSV

Digital file format

- TIFF

Image quality

- 64x64, 128x128, 256x256, 512x512, 1024x1024, or 2048x2048

Chemical analysis

- Point or area spectra acquisition, x-ray line scan, x-ray mapping

Automated analysis

- Up to 10,000 particles/ hr with EDS or up to 30,000 particles/ hr without EDS

Sizing accuracy

- 1 microns or better ¹⁰

Sizing precision

- 0.5 microns or better ¹⁰

System footprint

- 914mm x 711mm x 1422mm or 36" x 28" x 56" (W x L x H)

System weight

- 193Kg or 425lbs.

Overall total footprint

- 762mm x 1823mm x 1321mm or 36" X 72" x 56" (W x L x H) ¹¹

1 Maximum 5 mins replacement time. Performed by the user

2 Permits installation in non-traditional imaging environments

3 As measured during final calibration of tool at 25 kV

4 FEI standard test procedure

5 During continuous operation

6 When using holder for filters

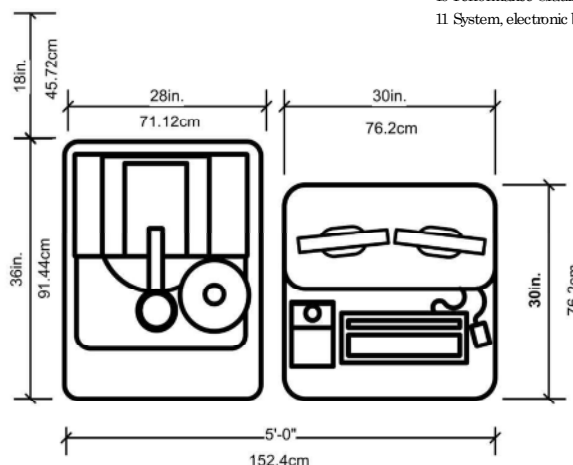
7 Single vendor design software. User has to learn only one software platform

8 Single vendor designed, developed, supported

9 Measured on Mn (Ka) peak at 20mm nominal working distance

10 Performance Grading System standard test procedure

11 System, electronic box, computer monitors and pump



Specifications are subject to change.

World Headquarters
Phone +1 503 726 7500

FEI Europe
Phone +31 40 23 56000

FEI Japan
Phone +81 3 3740 0970

FEI Asia
Phone +65 6272 0050

FEI Australia
Phone +61 7 3512 9100

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TÜV Certification for design, manufacture, installation, and support of focused ion- and electron-beam microscopes for the electronics, life sciences, materials science, and natural resources markets.

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