Introduction of Products

Electron Beam Lithography System

**JBX-3030MV**

The JBX-3030MV is an electron beam lithography system for mask/reticle fabrication that meets the design rule of 90 to 65 nm. This system features pattern writing with high speed, high accuracy and high reliability, achieved by high-end technologies.

- Accelerating voltage: 50 kV
- Electron gun emitter: LaB₆ single crystal
- Beam shape: rectangle (variable shaped)
- Workpiece dimension: up to 178 mm square
- Field stitching accuracy: ±9 nm
- Overlay accuracy: ±12 nm

Electron Beam Lithography System

**JBX-9300FS**

Developed to meet nanometric lithography for next-generation devices. It employs a TFE gun and uses an ultra-high current density of 4000 A/cm². As advanced equipment in the increasingly refined lithographic technology, this high-precision, high-speed system is contributing to research and development.

- Accelerating voltage: 100 kV/50 kV
- Electron gun emitter: ZrO/W (Schottky)
- Beam shape: spot
- Minimum beam diameter: 4 nm (100 kV)
- 7 nm (50 kV)
- Workpiece dimension: up to 300 mm in diameter

Electron Beam Lithography System

**JBX-6000FS/E**

The JBX-6000FS/E, which uses a 2000 A/cm² ultra-high current density TFE gun, was developed to meet the market’s needs for nanometric lithography and production of FET devices, along with the advances in technology. As advanced equipment in the increasingly refined lithographic technology, this high-precision, high-speed system is contributing to research and development.

- Accelerating voltage: 50 kV/25 kV
- Electron gun emitter: ZrO/W (Schottky)
- Beam shape: spot
- Minimum beam diameter: 5 nm (50 kV)
- 8 nm (25 kV)
- Workpiece dimension: up to 200 mm in diameter
Introduction of Products

Ultra-Zoom Defect Review Tool

**JWS-3000**

The JWS-3000 is a high-resolution defect review SEM for 300 mm wafers. It achieves ultra-high resolution with ultra-low accelerating voltage to reduce irradiation damage on specimens such as low-k materials.

- Resolution: 3 nm at 1 kV
- Accelerating voltage: 0.1 to 20 kV
- Wafer size: 300 mm & 200 mm
- Options: ADR/ADC, EDS, etc.

High Resolution Automatic Review SEM & FIB

**JFS-9200/9300**

The JFS series defect-review SEM/FIB system is a multi-function analysis tool for inline analysis and evaluation of semiconductor devices, with the catchphrase “Cut, See, and examine.” The JFS not only analyzes defects and failures beneath thin films but also evaluates structures of contact holes, which optical defect-review equipment and conventional SEMs cannot fully investigate. The columns of an FIB and a SEM are positioned in such a way that the FIB mills and the SEM images the same points. (The angle between the ion gun of the FIB and the electron gun of the SEM is 60°). You can observe a high-resolution SEM image of a milled cross-section, without moving the stage.

Defect Review SEM

**JWS-2000**

The JWS-2000 is a wafer inspection system that provides necessary information for yield management in various semiconductor manufacturing processes. This fully automated SEM enables you to obtain high-resolution, high-tilt SEM images with high speed and high accuracy.

- Resolution: 5 nm (tilt angle: -15 to 60°, at 1 kV)
- Accelerating voltage: 0.5 to 15 kV
- Wafer size: 150 mm to 200 mm
- Options: ADR/ADC, EDS, CD measurement, etc.