



Current Inventory of Scanning Electron Microscopes

Zeiss (Leo) ~ JEOL ~ Hitachi ~ KLA-Tencor (AMRAY) ~ FEI (Philips)

SEMs Currently Available for Demonstration



Zeiss SUPRA 55VP

The SUPRA® is an ultra high resolution FE-SEM based on the unique GEMINI® Technology. The large specimen chamber allows integration of optional detectors and accessories. The unique variable pressure (VP) capability of SUPRA® enables examination of non-conducting specimens without time consuming preparation.

Type	Resolution	Sample	Options
TFE	1.7 nm @ 1 kV 2 nm @ 30 kV (VP)	330mm dia. chamber, 130 mm X,Y	EDS, EBSD, BSE, STEM, Hot/Cold Stage, UPS



Zeiss NEON 40 EsB

The NEON 40 EsB combines the imaging and analytical capabilities of a high resolution FE-SEM, using the proven GEMINI lens design, with an advanced Canion FIB column. In addition, this CrossBeam system has a multi-channel gas injection system (GIS) for deposition of metal and insulating layers, and can also perform enhanced and selective etching. The EsB (integrated energy and angle selective BSE) detector of the NEON 40 provides ultra-high BSE imaging at very short working distances. Other features include a 6-axes fully eucentric motorized stage, IR CCD camera for sample viewing, and 100mm airlock. Included with this CrossBeam system is a 6 month warranty and on-site installation.

Type	Resolution	Sample	Options
TFE / FIB	2.5 nm @ 1 kV	330mm dia. chamber, 102 mm X,Y	Canion FIB, 5 channel GIS, 100mm Airlock



AMRAY 1845

The AMRAY 1845 features a 3 axes stage motorization package (X, Y, and R). This system has been upgraded to WinXP for digital image capture and networking. Also, an IR Chamberview System has been added as well.

Type	Resolution	Sample	Options
TFE	4 nm @ 1 kV 1.5 nm @ 25 kV	3" max., 75 mm X, 50 mm Y	IRCS, 3 axes motorized stage

Our Commitment:

SEMTECH SOLUTIONS is committed to providing you with the highest quality reconditioned SEMs at the most competitive price. All of our SEMs are fully refurbished to meet or exceed factory specifications. Each SEM can be demonstrated in our showroom to assure you are purchasing the right SEM for your application.

Leasing Options:

We understand that the purchase of any piece of equipment can be difficult. It is for this reason that we offer a lease program. This is a great way to conserve your company's capital.

Our Process:

All of our SEMs undergo a complete series of checks. After an initial inspection, each machine is cleaned, reconditioned as required, and tested. After this, we then add additional features as needed so that your SEM will provide years of service to you.

Installation & Training

We offer installation and training on all the SEMs we have for sale. We recommend this option to make sure the system is operating to full specifications and that all users are properly trained.



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ELIONIX 8900FE

The ELIONIX 8900FE SEM is a unique system offering calibrated measurements in X, Y, and Z! This capability is made possible by 4 secondary electron detectors geometrically positioned around the primary beam and sample. More details on this 3D SEM can be found [here](#).

Type	Resolution	Sample	Options
TFE	5 nm @ 1 kV 1.2 nm @ 30 kV	6" max., 50 mm X, 88 mm Y	



AMRAY 3300

The AMRAY 3300 FE-SEM offers high resolution, high magnification imaging. This SEM has a large chamber and a 3 axes (X,Y, and R) motorized stage. This system has been upgraded to WinXP for digital image capture and networking.

Type	Resolution	Sample	Options
TFE	5 nm @ 1.5 kV 1.5 nm @ 20 kV	8" max., 100 mm X/Y	EDS, 3 axes motorized stage, WinXP upgrade



Hitachi S-4200

This Hitachi S-4200 FE-SEM is in excellent condition. The imaging capability is super, and the system has been refurbished with our X-Stream Imaging System, which allows for image capture and networking via a Windows XP platform.

Type	Resolution	Sample	Options
CFE	5 nm @ 1 kV 1.6 nm @ 15 kV	4" max., 100 mm X, 50 mm Y	EDS, BSE, IR Camera, Cold Finger, X-SIS



AMRAY 1910

The AMRAY 1910 FE features a 3 axes stage motorization package (X, Y, and R), along with a 4" load lock for fast transfer of samples. Also, this system has been upgraded to WinXP for digital image capture and networking.

Type	Resolution	Sample	Options
TFE	7 nm @ 1 kV 1.5 nm @ 30 kV	4" max., 100 mm X/Y	4" Load-lock, 3 axes motorized stage

Warranty

STS certifies all AMRAY SEMs. This includes a standard 3 month warranty, as well as offering after warranty service contracts, which cover the complete system (options not included). STS currently has over 100 SEMs under contract and maintains complete parts for the AMRAY product line. For non-AMRAY SEMs, we guarantee performance up to system sign-off on-site.

Can't find the SEM you're looking for?

We are continuously purchasing high quality used SEMs. If you don't see a SEM of interest on this list, contact us to see what we have incoming, or have us search for you.

Looking to sell your SEM?

If you have a SEM to sell that matches what we are looking for, then let's talk. We can arrange to pack the SEM at your site and ship it to our warehouse on short notice.



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Hitachi S-3200H

The Hitachi Model S-3200H Scanning Electron Microscope is designed for surface observation at high resolution in the fields of medicine, biology, electronics, new materials science, and so on. This system comes with an IR Chamber Scope and will be equipped with the STS X-Stream Imaging System.

Type	Resolution	Sample	Options
W	3nm @ 30kV	5" max., 80 mm X 40 mm Y	X-SIS, IRCS



AMRAY 1830

The AMRAY 1830 SEM features a large specimen chamber and many accessory ports for future expansion of analytical capabilities. The system has been upgraded to WinXP for digital image capture and networking.

Type	Resolution	Sample	Options
W (or LaB6)	4 nm @ 30 kV	4" max., 100 mm X/Y	BSE, IRCS, Cold Trap



AMRAY 3200

The AMRAY 3200 variable pressure SEM allows for uncompromised examination of conventionally unfriendly SEM samples. Standard features include a Robinson BSE, large chamber size, and computer controlled SEM package. Low vacuum specimen chamber pressure to 4 Torr, variable in 25 millitorr steps.

Type	Resolution	Sample	Options
LV	6nm @ 30kV (LV)	8" max.,	EDS, 3 axes
W (or LaB6)	4nm @ 30kV (HV)	100 mm X/Y	motorized stage, IR Camera WinXP upgrade

SEMs Currently being Refurbished



JEOL JSM-6340F

The JEOL JSM-6340F features an in-lens secondary electron detector capable of offering a resolution of 2.5 nm at 1kV. Also included is our X-Stream Imaging System, with WinXP for image capture and networking capability.

Type	Resolution	Sample	Options
CFE	2.5 nm @ 1 kV	4" max.,	X-SIS, 4"
	1.2 nm @ 20 kV	50 mm X 70 mm Y	Airlock, Cold Trap



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JEOL JSM-6300F

The JEOL6300F offers a resolution of 1.5 nm in secondary electron imaging (SEI) mode and 3.0 nm in backscattered electron imaging (BEI) mode at 30 kV. The airlock specimen chamber allows up to a 32 mm diameter sample, and the size can also be up to 150 mm without the airlock.

Type	Resolution	Sample	Options
CFE	1.5 nm @ 30 kV	5" max., 50 mm X 70 mm Y	X-SIS



AMRAY 1860

The AMRAY 1860 FE SEM features an 8" Auto Loadlock and Windows XP upgrade for digital image capture and networking. This system comes equipped with a 5 axes motorized stage and STS IR Chamber scope as well.

Type	Resolution	Sample	Options
TFE	7 nm @ 1 kV 1.5 nm @ 25 kV	8" max., 160 mm X 152 mm Y	IRCS, WinXP upgrade, 8" Loadlock



JEOL JSM-5900LV

This JEOL JSM-5900LV has been modified by STS to acquire the video signal through our X-Stream Imaging System for digital image capture and networking on a WinXP platform. The system comes with an 8" chamber, 5 axis motorized stage, Oxford EDS, and an STS IR Chamberview system.

Type	Resolution	Sample	Options
LV	3nm @ 30kV (SEI)	8" max.,	X-SIS, EDS, IR
(W)	5nm @30kV (BEI)	125 mm X 100 mm Y	Camera, 8" Chamber



Philips XL 30

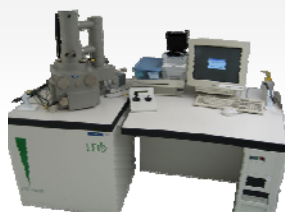
The Philips XL 30 is a conventional SEM with mouse-driven operation in a Windows environment. This system provides both secondary electron and backscattered electron imaging, along with an integrated EDAX system. The XL 30 offers a 4 axis motorized stage with full manual override. This is an excellent tool for both the experienced and first-time user.

Type	Resolution	Sample	Options
W	3.5nm @ 30kV	6" max., 50 mm X 50 mm Y	EDX, BSE



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LEO 435VP

The LEO 435VP is a high-performance, variable pressure scanning electron microscope with a resolution of 4.0nm. Its 5 axis computer controlled stage is mounted in a specimen chamber measuring 300 x 265 x 190mm.

Type	Resolution	Sample	Options
LV (W)	4nm @ 30kV (HV)	8" max., 100 mm X 125 mm Y	



JEOL JSM-840

The JEOL JSM-840 is a multi-purpose SEM capable of acceleration voltages up to 40kV. This SEM features an Orion digital image capture system running on Win98, an EDS system making it suitable for elemental analysis, and a new NanoMaker Pattern Generator system with beam blanker for electron beam lithography to manufacture nano-scaled patterns.

Type	Resolution	Sample	Options
W	4nm	4" max., 15mm X, 25mm Y, 31mm Z	EDS, BSE, Beam Blanker, NM PG, Orion digital imaging