AeroSurf Specifications

■Specifications

Item	Specification
Magnification	15 × to 60,000 × (Up to 240,000 × with digital zoom)
Acceleration voltage	5 kV/15 kV
Observation mode	Standard/Charge-up Reduction mode
	Atmospheric/Negative pressure mode
Observation pressure	Atmospheric mode (10^5 Pa) with the membrane Negative pressure mode (approx. 10^3 Pa to 10^5 Pa) with the membrane Vacuum mode (approx. values between few Pa to several tens Pa) without the membrane
Image mode	COMPO/Shadow 1/Shadow 2/TOPO
Sample stage traverse	X：15 mm, Y：15 mm, Z：5 mm
Maximum sample size	55 mm in diameter (D: 8.5 mm) , 10 mm in diameter (D: 4.5 mm) D: Distance between BSE detector and sample surface
Maximum sample height	10 mm
Electron gun	Pre-centered cartridge filament
Signal detection system	High-sensitivity semiconductor 4-segment BSE detector
Auto image adjustment function	Auto start, Auto focus, Auto brightness/contrast
Frame memory	640×480 pixels, 1,280×960 pixels
Image format	BMP, TIFF, JPEG
Data display	Micron marker, Micron value, Date and time, Image number and comments, Image mode, Acceleration voltages, D (Distance), Observation mode
Evacuation system (vacuum pump)	Turbomolecular pump: 30 L/s x 1 unit, Diaphragm pump: 1 m^3/h x 2 units

■Required PC specifications

Item	Specification
OS	Windows®7 Professional (64 bit version)
CPU	Intel® Core™ i5-2520M (Equivalent or higher)
Memory	2 GB minimum
Display resolution	1,280 x 800 pixels or 1,366 × 768 pixels
Display size	15-in display
Interface connector	Installing USB 2.0/3.0 and PC-card slot

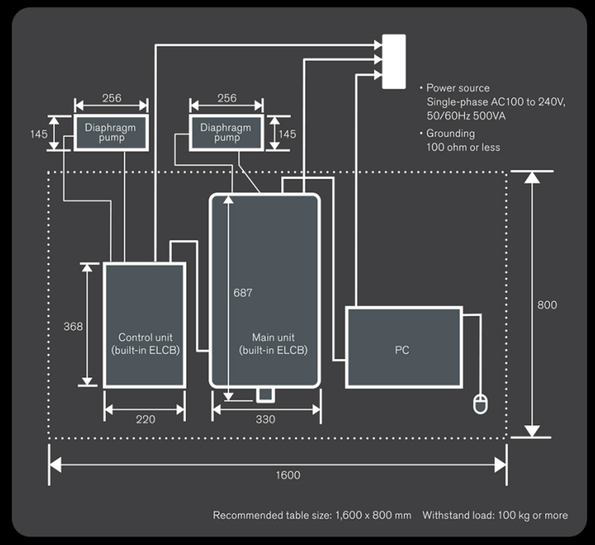
■Dimensions and weight

Item	Specification (Width x Depth x Height, Weight)
Main unit	330 x 687 x 565 mm, 67.0 kg
Control unit	220 x 368 x 235 mm, 11.8 kg
Diaphragm pump	145 x 256 x 217 mm, 4.5 kg (x 2 units)

■Optional Accessories

Energy Dispersive X-ray Spectrometer (EDS)

■Installation layout



Hitachi High Technologies owns Japanese and US patents.
(Japanese patent#05699023, USP#8710439, USP#8921786, USP#9105442)

•Power source
Single-phase AC100 to 240V, 50/60Hz 500VA
•Grounding
100 ohm or less

NOTICE: For correct operation, follow the instruction manual when using the instrument.

Specifications in this catalog are subject to change with or without notice, as Hitachi High-Technologies Corporation continues to develop the latest technologies and products for our customers.

Hitachi High-Technologies Corporation
Tokyo, Japan
www.hitachi-hightech.com/global/science/
24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan

For technical consultation before purchase, please contact:
customercenter.ev@hitachi-hightech.com

HTD-E230 2016.3

Printed in Japan

HITACHI
Inspire the Next

Atmospheric
Scanning Electron Microscope

AeroSurf

Going beyond
Scanning Electron Microscope
to Shape the Future!

Going beyond Scanning Electron Microscope to Shape the Future!

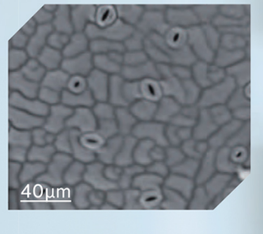
Hitachi High Technologies continues to remove the boundaries and revolutionize the field of electron microscopy. Not just enhanced performance or observation under atmospheric pressure but changing the rules of scanning electron microscopes. Dreaming beyond tomorrow. Thinking without limitations. That is what we strive to do.

Atmospheric
Scanning Electron Microscope

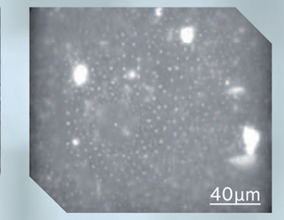
AeroSurf

Shape the Future!

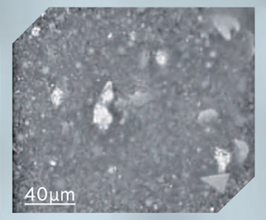
AeroSurf Shape the Future!



Raw spinach leaf can be observed as is without water-evaporating from vacuum evacuation.



Cosmetic 30 sec. after applied



Cosmetic 15 min. after applied

A drying process can be observed under an atmospheric pressure. The cosmetic sample has been dried with time and the fine particles contained in the cosmetic are being extracted.

1. SEM observation of wet samples at an atmospheric pressure without preprocessing
2. SEM observation under a wide range of pressures from low vacuum to atmosphere (10^5 Pa)
3. ES-Corrector equipped as standard for correcting the scattering of electron beams
4. A compact design (330 mm wide) for maximizing the lab space
5. EDS analysis also available (optional) for the vacuum mode