



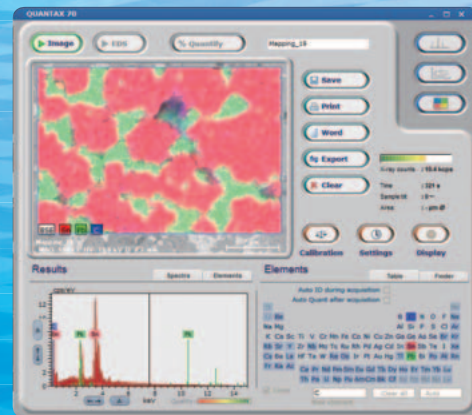
\*Typical Configuration of TM3000 with Quantax70  
\*Built-in EDX detector

# Quantax 70

- Light Element detection from Boron upwards.
- Linescan, Mapping and multiple Point Analysis available.
- No LN<sub>2</sub> required. Quick and Easy Analysis obtained within minutes.
- Image and elemental data displayed on the same monitor.



Point/Line Analysis



Mapping

## Detector

|                   |   |
|-------------------|---|
| Detector type     | Silicon drift detector (SDD)  |
| Detection area    | 30mm <sup>2</sup>   |
| Energy resolution | 154eV (CuK $\alpha$ ) (equivalent to 137eV with Mn-K $\alpha$ )   |
| X-ray window      | For light element detection   |
| Detection element | B <sub>5</sub> ~Am <sub>95</sub>  |
| Thermal cycle     | Detector cool down on demand.   |
| Cooling method    | 2 stage Peltier cooling (No fan, No liquid nitrogen needed)<br>Cooling temperature about -25°C<br>Cooling is not needed when not in use.<br>No detector warm-up needed during venting or sample changing.<br>After power supply is turned on and cooling starts, it can be used in two minutes. |

## MIN SVE signal processing unit

|                        |                                   |
|------------------------|-----------------------------------|
| Multi-Channel analyzer | 4,096 channels (5eV/ch)           |
| Signal processor       | Up to 60,000cps output count rate |

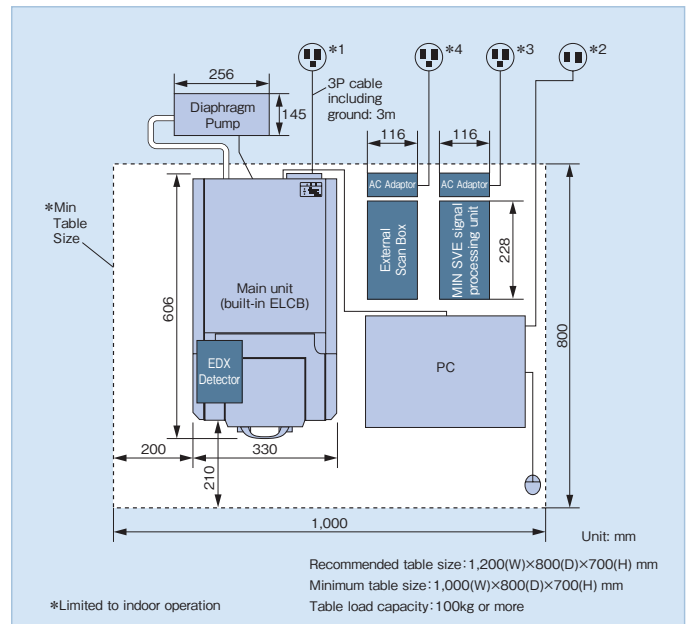
## External Scan Box

|                              |                     |
|------------------------------|---------------------|
| Interface to TM3000 notebook | USB 2.0 or Ethernet |
| Interface to microscope      | via DBC cable       |

## Software

|                       |  |
|-----------------------|--|
| Spectrum Display      | Scale expansion in vertical and horizontal direction, Automatic scaling, KLM marker display  |
| Qualitative analysis  | Automatic ID and manual peak ID  |
| Quantitative analysis | Standardless quantitative analysis, normalize to 100%  |
| Image capture         | 1,024 × 768, 640 × 480, 320 × 240 pixel  |
| X-ray mapping         | 1,024 × 768, 640 × 480, 320 × 240 pixel<br>Displays as single element map<br>Display of several maps as overlaid image<br>Overlay of single and mixed element map with BSE image<br>Color of each map can be changed   |
| Line analysis         | Flexible line positioning in all directions<br>Individual selection of line colors for each element<br>Overlay of line scan profile with scan image<br>Display of line scan spectrum   |
| Spot/area analysis    | Spot can be positioned anywhere on the image<br>Single circle but can be moved and resized (10-768pixels).<br>Analysis results of spot: Display of spectrum, results table and graphic display<br>Automatic element ID of spot<br>Automatic quantification of spot<br>Manual selection/deselection of elements |
| Data reporting        | Report template for printing<br>Export of spectra to Bitmap, Tiff, JPEG, Excel 2007 and Text<br>Export of spectra and results to Microsoft® Word 2007  |

## Reference Example of TM3000 and Quantax70 Installation



\*Periodical maintenance is required for this apparatus

## Dimensions and Weight (Width × Depth × Height, Weight)

|                                 |                          |
|---------------------------------|--------------------------|
| Detector (housed within TM3000) | 145 × 130 × 105mm, 1.5kg |
| MIN SVE signal processing unit  | 228 × 116 × 66mm, 1.0kg  |
| External Scan Box               | 228 × 116 × 66 mm, 1.0kg |

## Installation Conditions

|                   |  |   |
|-------------------|--|---|
| Room temperature  | 15~30°C  |   |
| Humidity          | 45~70%RH or less                                       |   |
| Power (TM3000)*1  | Single-phase AC100~240V (±10%) 50/60Hz 500VA, 3P cable |   |
| Grounding         | 100 ohm or less  |   |
| Power (PC)*2      | Single-phase AC100~240V (±10%) 50/60Hz 80VA, 2P cable  |   |
| Power (Quantax70) | MIN SVE signal processing unit*3                       | Single-phase AC100~240V (±10%) 50/60Hz 25VA, 3P cable |
|                   | External Scan box*4                                    | Single-phase AC100~240V (±10%) 50/60Hz 15VA, 3P cable |

## Required PC Specifications

|                     |  |
|---------------------|--|
| OS                  | Windows® 7 Professional (32bit)            |
| CPU                 | Intel® Core™ 2 Duo P8700 or compatible CPU |
| Memory size         | 2GB  |
| Monitor resolution  | 15.4 type, WXGA 1,280 × 800 pixels         |
| Interface connector | USB 2.0, PC card slot                      |

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\*Specifications of a PC are subject to change.

Notice: For connect operation, follow the instruction manual when using the instrument.

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