

X-SUPREME8000

Element range:

- Sodium¹¹ to Uranium⁹².

Mode of analysis:

- Energy Dispersive X-ray fluorescence analysis (EDXRF).
- Simultaneous analysis (with live update of results), or sequential operation with live updates after the first measurement condition.

Number of elements

- 1-80 elements (qualitative). 1-50 elements (quantitative or semi-quantitative) using empirical calibrations or optional standardless (Fundamental Parameter) analysis.

Concentration range

- ppm to 100% m/m.

Samples:

- Sample form: Solids, liquids, powders, pastes, granules, films, filter papers etc.
- Sample tray: Standard automated 10-position sample tray, with ability to fit secondary safety windows in each location for liquid analysis includes two test samples located underneath tray.
- Sample chamber: Air with optional helium and sample rotation specified by application.
- Sample size: Unique Hitachi sample holders for liquids/ powders/ pellets/ films/ paper and glass beads analysis. Liquids and powders 13 ml, solid disk 28-40 mm (1.1-1.5") diameter when using Hitachi sample holders. Maximum sample height 60 mm (2.3").

Note: i) 47 mm (1.9") diameter filter papers uses optional sample holder P/No 54-ZX18.
ii) 51.5 mm (2") steel ring for cement minerals application uses optional sample tray P/No 54-ZX18.

X-ray

- Excitation: X-ray tube 4-30kV (3 Watts max), W, Ti, or Pd, application optimised. Programmable excitation conditions with primary beam filtration from 4 kV and 5 µA, includes Hitachi's pre-programmed "instrument fixed conditions".
- Detection: Hitachi's high resolution Silicon Drift Detector (SDD), typical resolution 145 eV at Mn K alpha X-ray energy, or gas sealed proportional counter specified by application.



Data processing:

- Spectrum processor with multi-channel analyser.
- User interface/PC Full colour adjustable 12" TFT SVGA LCD with optional touch screen display. Embedded Industrial workstation with Intel Atom D510 1.66 GHz processor, 100 GB hard-drive, Windows™ 7 for embedded PC operating system, with 3 USB ports and 1 Ethernet port. Automatic database backup.

Note: due to rapid changes in technology, specification may change but will be equivalent or better.

Software:

- Resident Analytic Software Package includes: facility for simple routine operation, restandardisation, qualitative, and full quantitative analysis, comprehensive X-ray correction models, ability to store results, monitor QC check sample, display spectrum scans, download calibrations, export data, and simple data back-up routine.

Operating environment:

- Operating temperature from 10°C to 35°C, operating humidity 15-80% non condensing. Maximum altitude for operation 2000m (6560 ft).
- Storage temperature: -30°C to 50°C

Power requirements:

- 85-264 V AC; 47-63 Hz; 400 VA max.

Weight and dimensions:

- Weight (unpacked): 43 kg (95 lb)
- Width: 832 mm (33")
- Depth: 603 mm (24")
- Height: 600 mm (24") at maximum height of lid and monitor.