

The Thermo Scientific iCE 3300 AA Spectrometer provides the complete elemental analysis package with stunning simplicity, innovative design and superior performance.

## Thermo Scientific iCE 3300 AA Spectrometer

High performance, versatile, double beam Atomic Absorption Spectrometer



The ground-breaking iCE 3300 AA Spectrometer makes even the most complicated analyses simple. Superior, double beam optics provide unrivalled performance, while the innovative hardware and software design ensures that running samples, developing methods and maintaining the instrument is easy.



- Improved, efficient design minimises the footprint of the instrument and ensures that day-to-day analysis and maintenance is simple
- Enhanced, user-friendly software and comprehensive Wizard-driven interface to guide you through every aspect of an analysis
- High precision, double beam optics produce unparalleled detection limits and exceptional optical stability
- New universal titanium burner with improved solids capability increases the efficiency and accuracy of your flame analysis
- Unique Quadline background correction with guaranteed performance
- Safety comes as standard with integrated software, hardware safety features and automatic gas control
- Simple installation and operation of the pre-aligned furnace and auto-sampler module
- Unique furnace vision system improves efficiency of furnace analysis and method development (optional upgrade)
- Security software and validation packages allow complete 21 CFR part 11, GLP and GALP compliance (optional upgrades)

The iCE 3300 offers unrivalled flame sensitivity which is achieved by high efficiency nebulization through a fully inert impact bead, spoiler and spray chamber. The new finned universal titanium burner ensures exceptional atomization, even with the most difficult samples. The fully automatic gas box uses binary flow control for safe, reliable and repeatable analysis with all flame types.

All critical parameters can be optimized automatically if required – burner height, gas flows, even optical instrument parameters.

The iCE 3300 accepts the GFS33 Integrated Graphite Furnace and Auto-sampler Module which offers the best in detection limits with minimum interferences. Dynamic optical temperature feedback ensures accurate heating rates up to 3000 °C per second regardless of cuvette age. Add to that the optional unique furnace vision system then you have the ultimate in effective and easy furnace method development.

The GFS33 offers unrivalled graphite furnace automation. Huge capacity and infinite solution preparation facilities cater for all needs. With automated ash/atomise temperature optimisation, auto-sampler loading guides and the Thermo Fisher Scientific unique guaranteed background correction system, furnace analysis has never been easier. The auto-sampler remains permanently in alignment with the furnace completely eliminating the need to re-align the probe every time the furnace is fitted.

Thermo Fisher Scientific is the only supplier offering Extended Lifetime Cuvettes (ELC) with up to 10 x more lifetime than alternatives. Couple this with features such as pre-heated cuvette injection, cooling water temperature compensation and fast furnace operation - making it the safest choice.

The Thermo Scientific iCE SOLAAR AA software package is both intuitive and helpful. Extensive wizards are able to guide the user through various operational procedures making start-up a simple and quick process.

Additional information on the operational conditions for any elemental analysis is available in the help text and cookbook.

A full range of accessories are available to permit flame auto-sampling, intelligent dilution, vapour analysis, validation, automated graphite furnace and much, much more.

## Technical Specification

|                         |   |
|-------------------------|---|
| Optics                  | Double Beam                             |
| Monochromator           | 0.27 m Ebert type                       |
| Lamp Carousel           | 6 Lamp Coded, Auto-aligning             |
| Photomultiplier         | Choice of standard or wide range types  |
| Flame Atomiser          | Universal system (uses 50 mm Ti burner) |
| Furnace Atomiser option | GFS33 combined module                   |
| Furnace Vision System   | Optional                                |
| Background Correction   | Guaranteed Quadline deuterium system    |
| Gas Management          | Automatic binary control                |
| PC Software             | Included as standard                    |
| Validation Package      | Optional                                |

The Thermo Scientific iCE 3000 Series comprising of:-

### ***iCE 3300 Atomic Absorption Spectrometer:-***

Single flame atomizer AAS with fully automatic gas box.

### ***iCE 3400 Atomic Absorption Spectrometer:-***

Single furnace atomizer AAS with Zeeman and D<sub>2</sub> background correction.

### ***iCE 3500 Atomic Absorption Spectrometer:-***

Dual flame and furnace system AAS with Standard or Zeeman furnace option.

The iCE 3000 Series provides an unrivalled range of solutions from Thermo Fisher Scientific; the award winning innovator in Atomic Absorption Spectrometry.