



**ingeniería  
analítica s.l.**  
CROMATOGRÁFIA Y ESPECTROSCOPIA

## ULTRA™ Multi Tube Autosampler

UNITY can be simply upgraded by the addition of ULTRA - for the automatic desorption of up to 100 industry standard tubes. The slimline design consists of 10 trays each containing up to 10 tubes. The combined ULTRA-UNITY™ system occupies only 16 inches of bench space. All key UNITY features - analyte range, sample protection, split flexibility, etc. - are maintained on systems upgraded with an ULTRA autosampler.

### Unique Sealing Caps

- **Patented DiffLok™ Caps** Tubes on the ULTRA autosampler are sealed with DiffLok caps to preserve sample integrity. DiffLok caps provide an effective tube seal until pressure is applied causing gas to flow.
- **No Loss Of Sample Or Ingress Of Contaminants** DiffLok caps maintain the integrity of both sampled and cleaned tubes via a unique diffusion limiting design. Tubes sealed with DiffLok caps show negligible ingress of contaminants or loss of sampled components over time. The cap on the sampling end of the tube has an inert coating to prevent breakdown of labile compounds.



### Simple Reliable Operation

- **No Cap Removal** As DiffLok caps do not need removing or replacing during analysis, the system offers unrivalled reliability.
- **Minimal Mechanical Movements**

With a total of 4 linear movements each capped tube in turn is lifted into the single desorption oven and sealed into the carrier gas flow path.

### Low Maintenance

The self-aligning, cone-shaped tube receivers provide a robust gas-tight seal while minimising o-ring wear. O-ring seals last for many thousand operations and are readily accessible for user exchange.

### Windows® Based Control Software

#### - Intuitive control

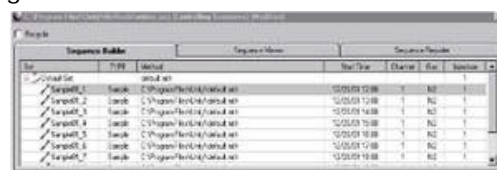
Evolved from the UNITY user-interface, ULTRA control software is intuitive and Windows based.

#### - Sequence Building

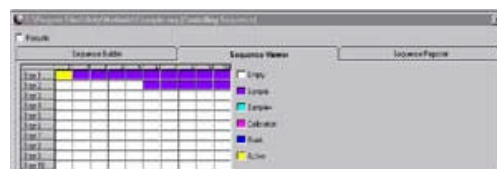
Automated sequences are easily constructed via the sequence builder. Tubes may be assigned individual desorption methods and are classified as sample, calibrant or blank. All sequences may be stored and recalled for future use.

#### - Sequence Reporter

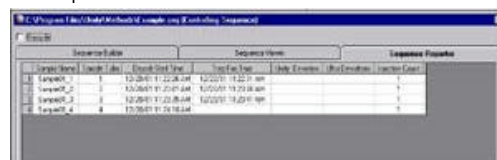
Events associated with every analysis, such as the time and date of each tube desorption, and deviations such as tube not found or leak test failure, are all recorded in the sequence reporter. Any tube sequence failure triggers the GC start to keep the analyser in step with the desorder.



Sequence viewer showing the position and status of each tube in the sequence. Tubes are colour coded



Sequence builder showing sample set, type, desorption method to be used and tube number.



Sequence reporter showing the log of all events, including and deviations, associated with each tube desorption

**ULTRA™ Multi Tube  
Autosampler**

Av. Cerdanyola, 73  
Apartado 282  
08190 SANT CUGAT DEL VALLES  
(Barcelona-Spain)  
Teléfono: 902456677  
Fax: 902466677  
Email: inf@ingenieria-analitica.com  
www.ingenieria-analitica.com

*la ingeniería en  
analítica instrumental.  
un nuevo concepto*



Av. Cerdanyola, 73  
Apartado 282  
08190 SANT CUGAT DEL VALLES  
(Barcelona-Spain)

Teléfono: 902456677  
Fax: 902466677  
Email: inf@ingenieria-analitica.com  
www.ingenieria-analitica.com

*la ingeniería en  
analítica instrumental.  
un nuevo concepto*

# ULTRA™ Multi Tube Autosampler

## ULTRA™ Multi Tube Autosampler

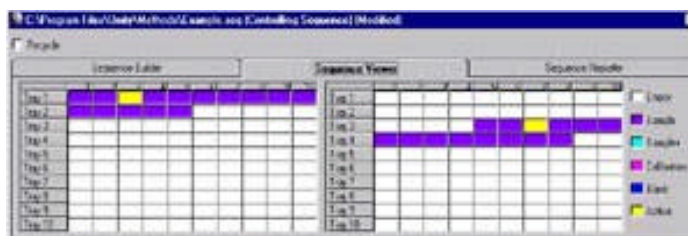
### Internal Standard / Dry Purge (ISDP) Module (optional)

As a QA check on every analysis, the ISDP accessory allows fixed volumes of gas-phase internal standard to be introduced from a gas sampling valve loop to the sampling end of each sorbent tube before desorption. Dry purging of tubes, in the sampling direction, before analytical desorption, is also possible using ISDP or using a separate Dry Purge only module. (Also see Mi TC-20 brochure)



### AutoSecureTD™ - Automated Re-collection

An ULTRA-UNITY system can be further enhanced by the addition of a second ULTRA configured for SecureTD re-collection of every sample in a sequence. The second ULTRA may be easily reconfigured to sampling mode for maximum operational flexibility. DiffLok caps are fitted to both desorption and re-collection tubes ensuring the integrity of primary and re-collected samples. Trays on both autosamplers are interchangeable, so re-collected tubes can be analysed by simply transferring trays from one autosampler to the other.



Sequence viewer showing the position and status of each sample tube and each SecureTD recollected tube

