

**EUROVECTOR**  
THE ELEMENTAL ANALYSIS COMPANY



EA3100 SERIES OF CHNS-O

# EMBRACING **SIMPLICITY**

COMPLEX MATTERS TURNED INTO ELEMENTS

## EA3100 ELEMENTAL ANALYZER

**EA3100 Series** of CHNS-O Elemental Analyzers, with its dedicated SW Weaver, allows for the most exact determination of **Carbon, Nitrogen, Hydrogen and Sulphur** in virtually all-existing substances.

This is achieved through only **three basic steps**: sample combustion at high temperature, fast separation of the resultant gaseous species and TCD detection.

Determination of **Oxygen** content is performed on the same instrument in pyrolysis mode by a quick change of configuration.

First developed in year 1995, today the new EA3100 re-defines the state-of-the-art in Elemental Analysis with its minimal footprint, the Extended Analytical Range and Weaver™ SW Multi-Instrument acquisition mode.



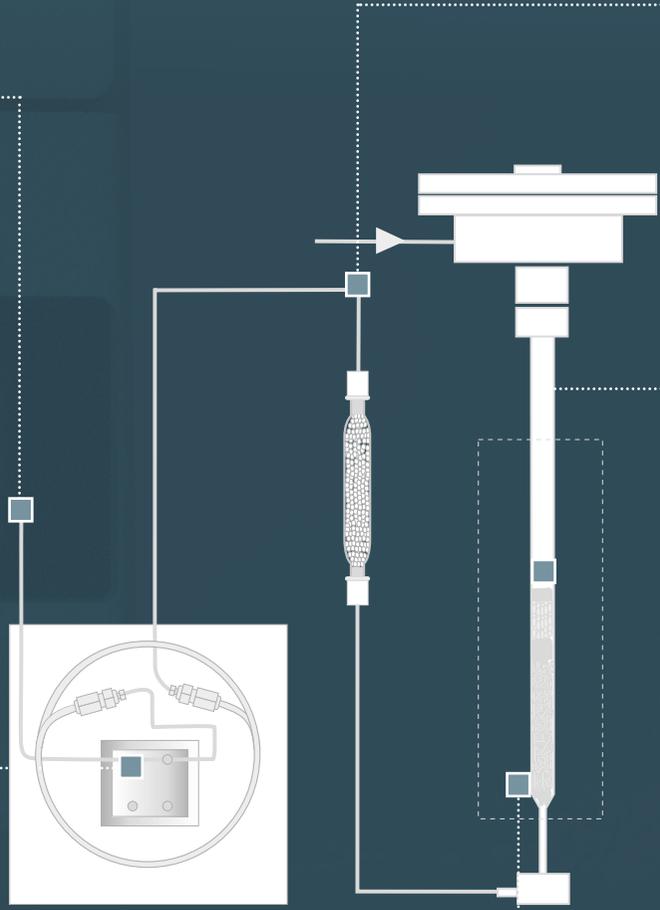
# HOW IT WORKS



Weaver™ SW acquires and processes data from the EA via USB, providing Element% content in mass as result. Multi-Instrument mode allows for simultaneous data acquisition from different EAs.



Supersensitive TCD Technology allows measurements from low ppm traces up to 100% on all elements, granting linearity and perfect stability



Quick configuration changes from CHNS, CHN, CN, to Oxygen determination in few simple user friendly steps.



TurboFlash™ Technology fully controls combustion, synchronizing sample admission with pressurized Oxygen injection, independently from Helium carrier gas flow rate.



EuroVector High Speed Chromatography saves Helium, separating gas peaks to baseline at an unbeatable 6 minutes analysis time (CHNS).

A photograph of a wind farm at sunset. The sky is filled with vibrant orange and red clouds, and the sun is low on the horizon, creating a warm glow. Several wind turbines are visible, with the largest one in the foreground on the right. The foreground is a field of tall, golden-brown grasses.

**SIMPLICITY**

IS THE ULTIMATE

**SOPHISTICATION**

Leonardo Da Vinci

# UNLIMITED FIELDS OF APPLICATION



## **NUTRITION**

**Food, Feed, Cereals**

Feeding 9 billions people by mid-century is the planet's target. The superfast, reliable and environmental friendly N-Protein Analyser... our provision.



## **AGRICULTURE**

**Soils, Sediments, Rocks, Vegetables**

Finding new arable lands and balancing soil C/N ratio, S concentration and TIC/TOC ratio, outcomes in better production quality and full respect of the environment.



## **CHEMISTRY**

**Organics, Synthetic Compounds, Polymers, Pharma**

EA3100, with its unbeatable detection limit and 6 minutes CHNS-O analysis run time, is the perfect tool to keep the high global cost of poor chemical management and its associated health and environmental risk under control.



## **ENVIRONMENT**

**Plants, Branches, Leaves, Roots**

Determination of micronutrients concentration in plants and vegetables is an invaluable aid to nutrient management decisions, both in agronomy and ecosystems preservation.



## **ENERGY & RENEWABLE**

**Coal, Petroleum & Lubricants, Biofuel, Biomasses, Wastes**

EA3100 provides the highest level of analysis performances in new energetic tasks such as selection of cleaner combustibles and transformation of hazardous waste into safe energy.

## TECHNICAL SPECIFICATIONS

|                              |  |
|------------------------------|--|
| <b>Technique</b>             | Elemental Analysis (CHNS-O)  |
| <b>Basic principle</b>       | Dynamic Pregl-Dumas  |
| <b>Results provided</b>      | Element% in mass for CHNS and O  |
| <b>Analytical Range</b>      | 50ppm - 100% for all Elements  |
| <b>Lower Detection Limit</b> | 1 $\mu$ g for (CHNS-O)   |
| <b>Analysis Time</b>         | CHNS = 6 min; CHN = 3 min; CN = 2 min;<br>N = 90 sec; S = 3 min; O = 3 min |
| <b>Gas Consumption</b>       | Operating 180ml/min - Std-by < 5ml/min                                     |
| <b>Power Gas Supply</b>      | 230V ~ 50-60Hz - 600W<br>Carrier: Helium - Combustion: Oxygen              |
| <b>Dimensions</b>            | L = 350 mm<br>H = 450 mm<br>D = 500 mm<br>Weight = 35 Kg                   |

# WEAVER™ SW FIT FOR ELEMENTAL ANALYSIS

**EA3100 Elemental Analyzer** excellent analytical performances are driven by **Weaver™**, the most complete software dedicated to Elemental Analysis.

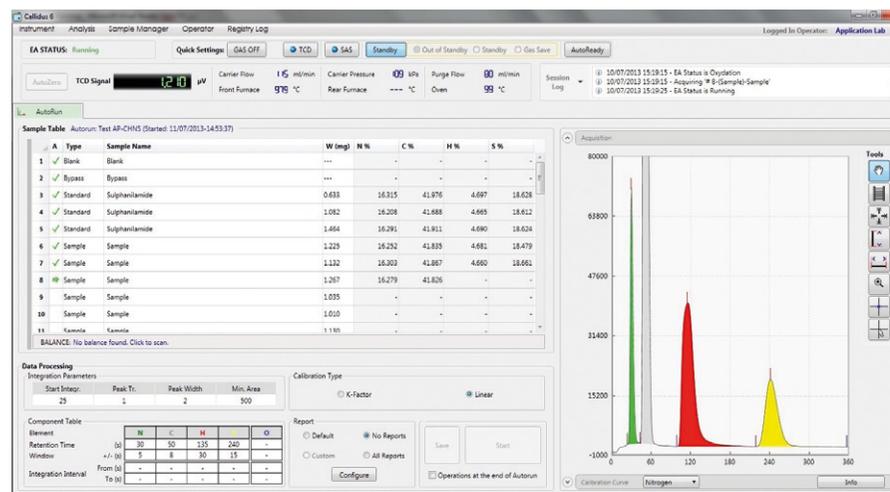
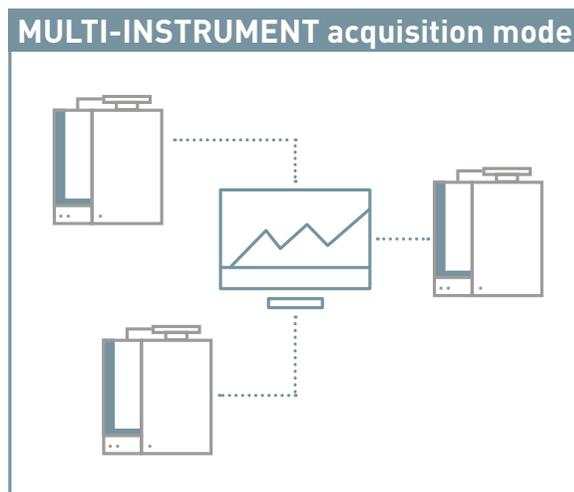
Weaver™ supervises **full automatic instrument control**, also allowing for **data reprocessing, preventive maintenance prompting, gas leak test and full diagnostic**.

Routine functions are immediately available through a set of quick settings buttons always on view, while one single window provides

access to all operations, from analysis setup and progress, to data reprocessing and printout reporting.

**MULTI-INSTRUMENT** acquisition mode offers a new approach in Elemental Analysis, highly increasing productivity. CHNS and O can now be analysed **simultaneously** from different instruments controlled by one single Weaver™ instance.

Empirical Formula, Heat Values calculation as well as 100% compliance to CFR 21 art.11 are also provided.



# EUROVECTOR

Since 1995 EuroVector design, manufacture and sell Elemental Analysers for Stand Alone applications, including Protein Analyzer. We are **committed to excellence in CHNS-O analysis** through continuous

innovation and generation of new products.

Based on **solid technologies**, we are showing **advanced performances** as a new dimension in Elemental Analysis.



## COMBINED EFFORTS

EuroVector and Elemental Microanalysis combine their efforts to maintain top analytical performances. EuroVector recommends consumables by Elemental Microanalysis, the only ISO9001/ISO17025/ISO17034 accredited consumables supplier.

## SALES NETWORK

EuroVector established a worldwide Distributors Network and related local sales representatives familiarizing them with the EA3100 Series.



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