

ELAn-35 Carbon Hydrogen & Nitrogen Analyzer

10 patents (7 invention patents), the only type of elemental analyzer which can replace the combustion crucible automatically.

Application:

Carbon Hydrogen & Nitrogen Analyzer can be used to determine the the carbon, hydrogen and nitrogen content in coal, coke and other combustibles.

Conformance with Standards:

ISO29541 Solid mineral fuels Determination of total carbon, hydrogen and nitrogen content Instrumental method

ASTM D5373-02 Standard Test Method for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Laboratory Samples of Coal and Coke

GB/T476-2008 Standard Test method for Determination of Carbon and Hydrogen of Coal

Specifications

Method:

Carbon & Hydrogen: Infrared absorption Nitrogen: Thermal conduction

Measuring Range:

Carbon (0.02%~100%) Hydrogen (0.02%~50%) Nitrogen (0.01%~50%)

Max Sample: 34

Single Sample Analysis Time: ≤ 5 min

Sample Weight: 75~105mg (90mg recommended)

Repeatability: Cad $\leq 0.5\%$ Had $\leq 0.15\%$ Nad $\leq 0.08\%$

Gas Requirement:

Combustion Supporting Gas: Oxygen Purity: $\geq 99.5\%$

Driving Gas: Nitrogen Purity: $\geq 99.5\%$

Carrier Gas: Helium Purity: $\geq 99.99\%$

Power Requirement: 220V(-15%~10%), 50Hz

Max Power: 4.5kW



Automatic combustion crucible introduction and removal



Sample loading carousel



Standard Layout:

Analyzer
Lenovo PC (Desktop)
Printer

Size:

680*630*980mm

N.W.:

127kg

Highlights

1.No disassemble or cooling required, easy to replace the combustion crucible.

For the elemental analyzers, the combustion residues will remain in the combustion crucible, after some quantity of tests (about 100), it needs to be replaced. For other brands, it is complex and time wasting, operators need to wait for the furnace cooling down and disassemble the analyzer, then replace the crucible manually. For us operators only need to click on the software, the crucible to be replaced will be presented from the combustion furnace to the crucible replacing door automatically. Once the crucible is replaced, tests can be conducted immediately.

2.Convenient to replace the reagent furnace

Separate design of combustion furnace and reagent furnace makes the replacement of the reagent easy and convenient.

3.Ultra-low drift infrared cell and thermal conductivity cell

With high-performance infrared light supply and superior optical glass, precise thermostatic control as well as pure gold infrared path, the drift of the infrared cell and TC cell have been optimized which are developed and designed by us.

4.Low operation cost

Purity of 99.5% oxygen and nitrogen can meet the test requirement.

During the test, He consumption is only 0.7L/min.

5.High automation

Up to 34 samples can be loaded and after that, operators can be freed for other tasks. The analyzer will finish the whole test automatically.

6.Improved test precision

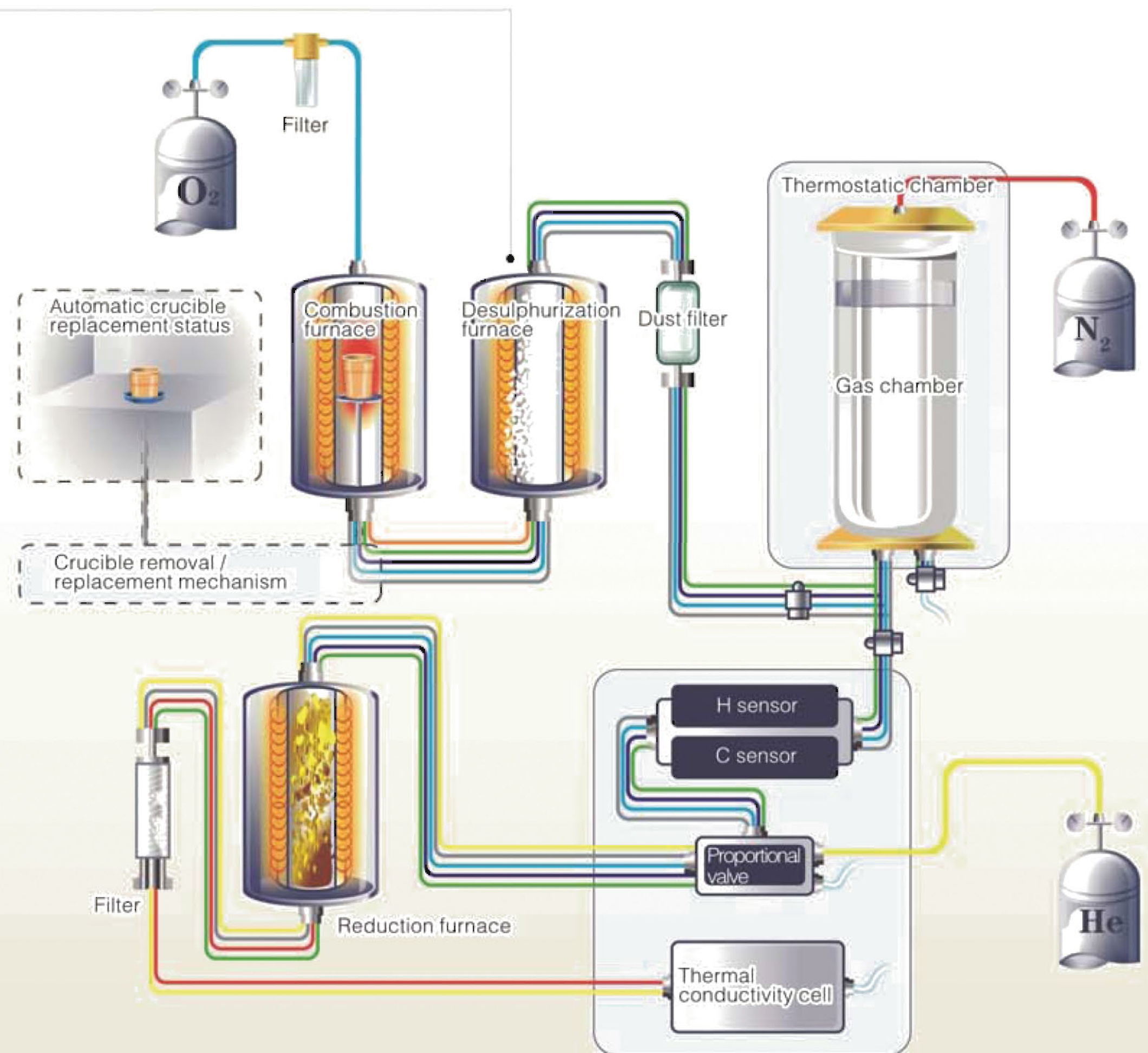
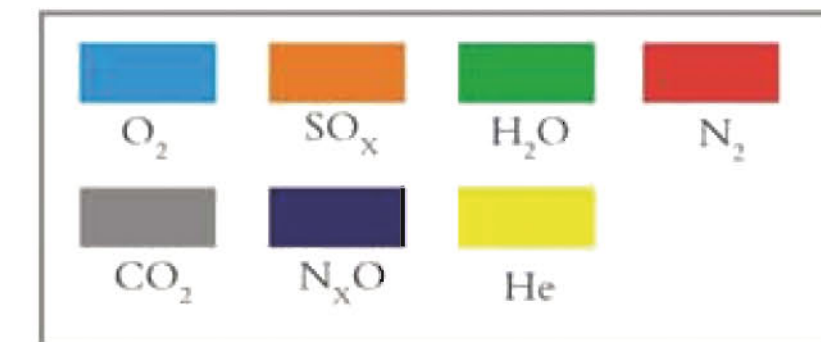
Samples are carried into the combustion furnace by oxygen blow, which can make sure all the gases obtained by combustion are collected into the gas chamber to improve the test precision.

7.Shortened preheating time

Preheating time is less than 2.5 hours.

8.Easy to handle

- Easy-to-use Windows®-based software.
- Easy data handling, real time data can be transmitted through internal network.
- With CAN bus interface, several elemental analyzers can be controlled by a single PC.
- Connect with balance and network by standard interface RS232.



Flow Diagram