

NEW



## ELEMENTRAC<sup>®</sup> ONH **P** 2

INNOVATIVE SAMPLE PORT

**QUICK & PRECISE OXYGEN / NITROGEN /  
HYDROGEN ANALYSIS BY INERT GAS FUSION**

## FOCUS ON TECHNOLOGY

# ONH ANALYSIS: QUICK AND RELIABLE

The new ELEMENTRAC ONH-p 2 is a powerful and robust elemental analyzer for the measurement of oxygen, nitrogen and hydrogen concentrations in inorganic samples like steel, iron, copper or ceramics.

The highly sensitive NDIR and thermal conductivity detectors reliably detect element concentrations from low ppm contents to high percentages.

Thanks to the innovative sample port with pulsed chamber flushing and vertical sample drop, user-friendly and convenient analysis of up to 2 g of rod-shaped, granular or powdery samples is possible.

ELTRA offers efficient options for high sample throughput, like the Autocleaner for automatic cleaning of the electrodes and the furnace chamber.



### BENEFITS

- | Low gas consumption and high sensitivity due to closed gas system
- | Easy application of pins, powders and granules
- | Inexpensive argon can be used as carrier gas
- | Short analysis time
- | Powerful impulse furnace with 8.5 kw
- | Optional Autocleaner

## ELEMENTRAC ONH-p 2

# INNOVATIVE DETAILS

The ELEMENTRAC ONH-p 2-series measures concentrations of oxygen, nitrogen and hydrogen in inorganic samples by inert gas fusion in an impulse furnace. The sample is introduced to the sample port and melts in the graphite crucible at a temperature of up to 3000°C. The released gases are detected by two infrared cells and a thermal conductivity cell.

The ONH-p 2 is conveniently operated via the intuitive ELEMENTS software. Measurement results are typically available after 120 to 180 seconds

analysis time and can be exported, printed or transferred to LIMS. The analyzer is available in versions for single-element determination of oxygen, nitrogen or hydrogen as well as for measuring combinations of ON, OH, NH, and ONH.

### TYPICAL SAMPLE MATERIALS

Steel, cast, copper, refractory metals, alloys, ceramics etc.



### NEW: OPTIONAL AUTOCLEANER

The melting of samples in a graphite crucible at temperatures up to 3000°C leads to the formation of depositions at the upper electrode and in the furnace chamber and can have a negative effect on the reproducibility of consecutive ONH measurements. The new optional Autocleaner of the ELEMENTRAC ONH-p 2 reliably removes these depositions and ensures precise gas analysis even with high sample throughput.



### ONH-P 2 AND ELEMENTS SOFTWARE

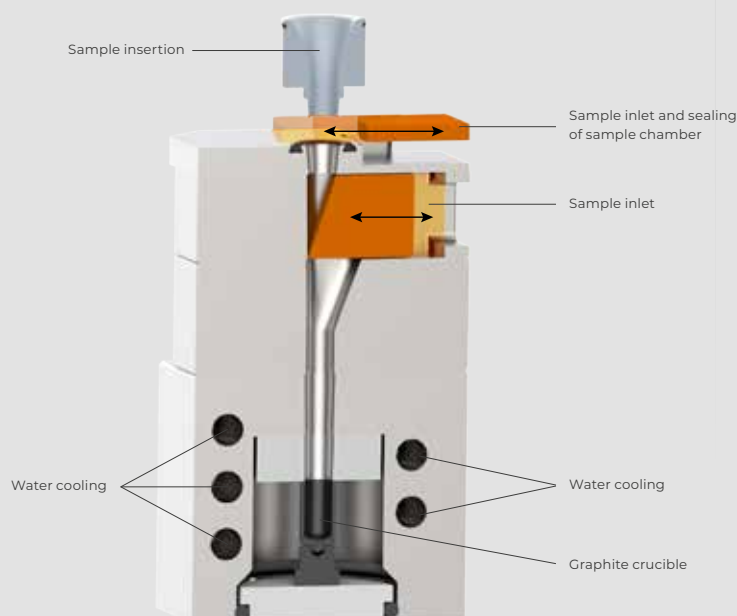
The new ELEMENTS software comes with all analyzers of the ELEMENTRAC series. All functionalities like analysis, calibration or measurement settings are clearly arranged in various windows to allow for quick and effective operation. The ELEMENTS software comprises a range of features such as system diagnosis, maintenance, or import and export of samples. It also supports integration of the analyzer into an automation process.

### NEW SAMPLE PORT

The new sample port of the ONH-p 2 ensures convenient operation and reproducible measurement results. Differently shaped samples, such as solid pieces, granules or powders in capsules, can be applied up to a weight of 2000 mg. They are quickly freed from the surrounding atmosphere with the help of pulsed carrier gas flushing in the sample port. Then they drop vertically into the preheated graphite crucible for analysis.

### BENEFITS

- ▮ Robust against dust development
- ▮ No closing of capsules required
- ▮ Direct application of up to 2000 mg
- ▮ Low maintenance and wear



## TECHNICAL INFORMATION

### ELEMENTRAC® ONH-p 2

Measuring range (1000 mg)	O: 0.04 ppm – 2 % N: 0.04 ppm – 2 % H: 0.08 ppm – 0.1 %
Typical sample weight	20-2000 mg
Analysis time	120-180 seconds
Calibration	Solids Gas
Detektoren	WLD (N;H) IR (O as CO <sub>2</sub> )
Typical samples	Steel, iron, copper, refractory metals, ceramics
Reagents	Magnesium perchlorate, sodium hydroxide, copper oxide, Schuetze reagent
Power supply	400 VAC ±10%, 50/60 Hz
Required gases	Helium, nitrogen, compressed air, argon (optional)
Configurations	ONH ; ON; OH; NH; O;N;H
Options	Gas purification; gas calibration unit Autocleaner (2021) Autoloader (2021)



The elemental analyzer ELEMENTRAC ONH-p 2 meets or exceeds the requirements of all relevant international standards for oxygen, nitrogen or hydrogen analysis.

Norm	Number
ASTM	E 1019; E 1409; E 1447; C 1494; E 2575; E 2792
DIN EN	3976
DIN EN ISO	10720; 15351 21068-3
ISO	17053; 22963
DIN	54387

## QUICK RESULTS THANKS TO EASY OPERATION

All ELTRA analyzers are characterized by their simple operation and quick C/S or O/N/H measurement of powders, granules, wires or foils. After weighing the sample and logging it into the software, all further steps are carried out automatically and the results are provided shortly after the analysis has started.



Introducing the sample



Placing the crucible



Analysis results after 120-180 seconds

**ELTRA**<sup>®</sup>  
ELEMENTAL ANALYZERS

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