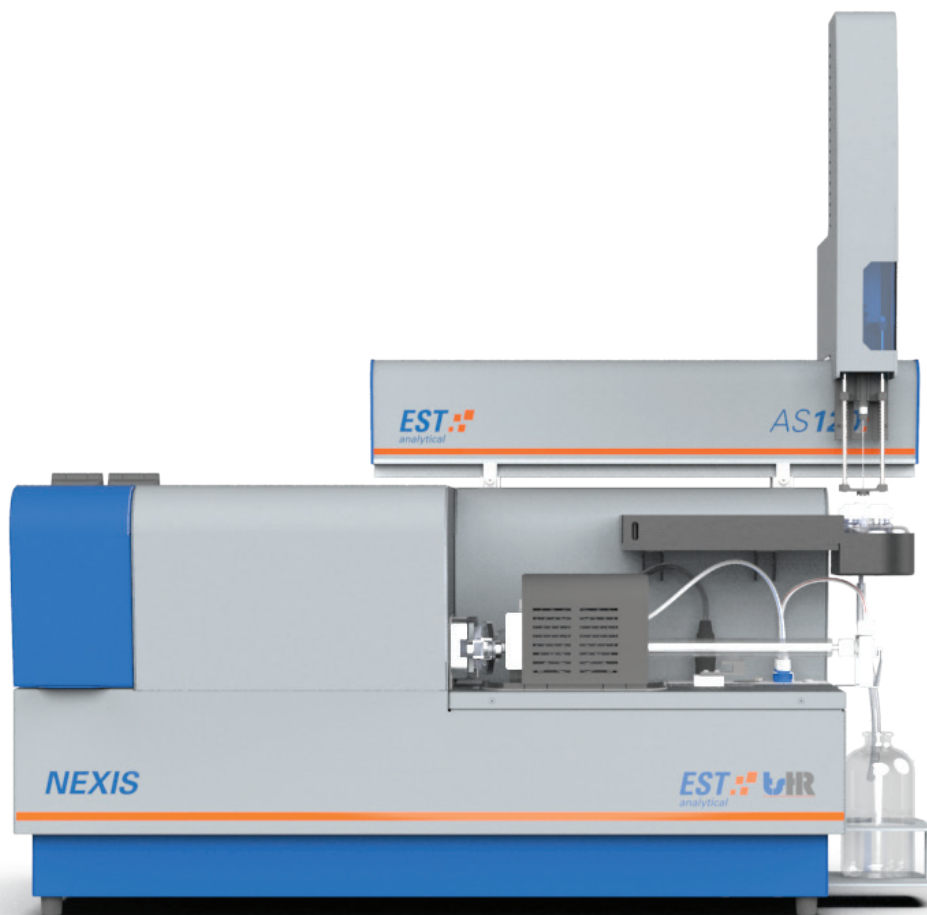


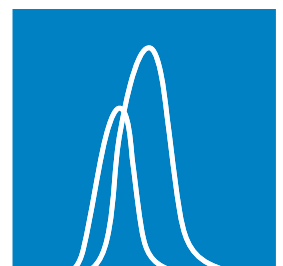
# NEXIS TN-TS-TX ANALYZER



ALL IN ONE TOTAL NITROGEN | SULFUR | CHLORINE  
ANALYZER WITH UNSURPASSED PERFORMANCE



- Fast, precise and accurate simultaneous TN/TS analysis under 20 ppb
- Unique design NEX-Z™ combustion tube without consumables costs
- AS120 Liquids/Solids autosampler with ONE-Cal™ Technology
- Ease-of-use with user interface NEXIS LINK™ software operation



# ACCURACY AND RELIABILITY YOU CAN COUNT ON

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The EST - TSHR Total Nitrogen/Sulfur/Chlorine Analyzer, model NEXIS, is a horizontal oriented combustion analyzer with highest modularity and advanced detectors to measure trace level nitrogen/sulfur/chlorine concentrations in a wide range of liquids, solids and LPG /Gas sample types. The NEXIS TN/TS analyzer configuration detects these substances through a uniquely high effective NEX-Z™ combustion tube design that includes Ultra Violet Fluorescence (UV-F) and Chemiluminescence (CLD) detection techniques, while Total Chlorine is detected by micro coulometry (MCT) with an add-on module. The NEXIS is manufactured to the highest level of ISO quality standards ensuring precision, accuracy and longevity.

Customers in refineries, petrochemical plants, commercial testing labs and Research & Development Centers will benefit from the NEXIS combustion analyzer. The ease-of-use operation, enhanced application versatility and reliability, deliver precise and accurate sulfur/nitrogen/chlorine analysis data. This makes the NEXIS an excellent product solution for their analysis needs, such as monitoring and protecting key refinery processes.



The NEXIS is designed to facilitate high sample throughput by optional addition of the AS120 liquid autosampler that will support both syringe and boat introduction methods with high performance and reliability. This solution provides a fully automated trace level combustion analyzer, which can be extended with heated sample tray capability. For Gas and LPG samples the NEXIS TN/TS/TX analyzer can be connected to a NEXIS GM module to facilitate this kind of samples with fast connectivity and ease-of-use operation through NEXIS LINK software.

The NEXIS Combustion analyzer fulfil a wide range of customers application demands and fully complies with international ASTM, ISO, DIN, EN and UOP regulatory methods.



## KEY ADVANTAGES

- High performance UV-F and CLD detectors with LOD's down to ppb level
- Accurate, Fast and Reliable Total Nitrogen/Sulfur/Chlorine Data
- Unique NEX-Z™ furnace tube design for long lasting and effective combustion
- Regulatory compliance to international standards (ASTM, ISO, UOP, DIN)
- Extensive Application range with enhanced flexibility for analysis of Liquids, Solids and Gasses / LPG
- Optional AS120 Liquid autosampler with heated tray capabilities for high sample throughput
- High efficiency boat cooling option for handling challenging sample matrices

# PRODUCTIVITY YOU NEED

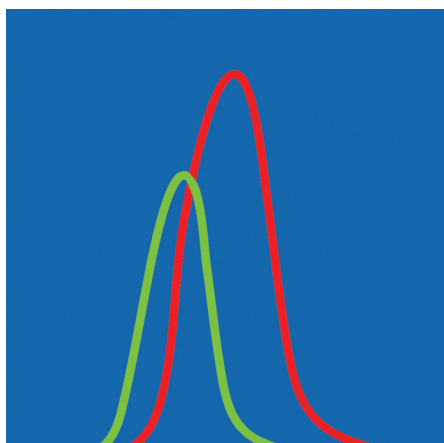
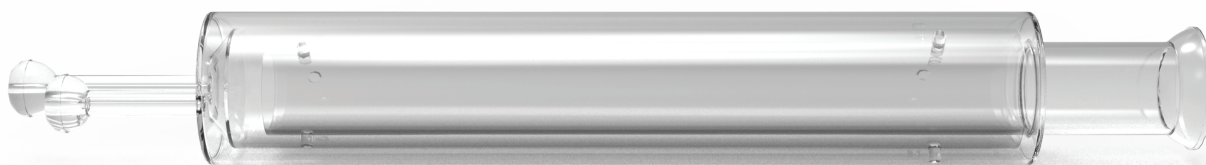
## AS120: RELIABLE XYZ-SAMPLER FOR BOTH LIQUIDS AND SOLIDS

The AS120 model autosampler can be configured to handle liquid samples and can also be converted into a fully-fledged solids autosampler to analyze e.g. catalysts and polymers by the NEXIS analyzer. The position of the sampler has no impact on laboratory bench space and has enhanced sampling capabilities with heated tray capability for handling high viscous samples. The AS120 liquids configuration can even make out of one (stock)standard a full calibration line fully automatic with high precision and accuracy. The AS120 is manufactured by EST and is fully compatible with the NEXIS. There is no 3rd party OEM involvement so you can feel confident in its capability and the support behind it.



### KEY ADVANTAGES

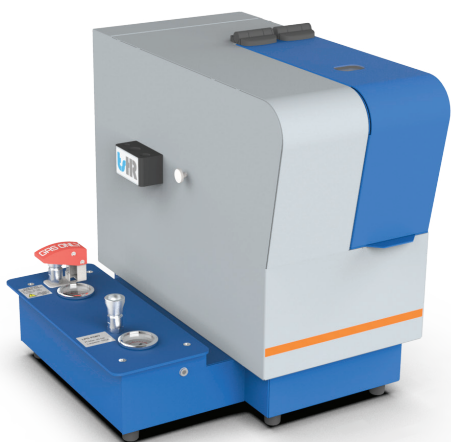
- Requires only ONE single liquid standard to prepare customized calibration lines
- Compatible with syringes from 25 to 250 uL
- Convert liquids into a solids application configuration within a minute
- Not an OEM resulting in faster and comprehensive support



## TRINITY™: POWERFUL TUNABLE SOLUTION FOR REPORTING UNBIASED SULFUR DATA

In order to have interference free Total Sulfur analysis consistent with ASTM D5453-19a, the NEXIS offers a unique software controlled and integrated customer solution in the TS and TN/TS analyzer configurations.

The use of the sophisticated NO<sub>x</sub> Elimination design, TRINITY™ module, enables users to adjust the power level to save operational costs while achieving most effective elimination of Nitrogen Oxide and finally reporting accurate and none-biased Total Sulfur data in their samples.

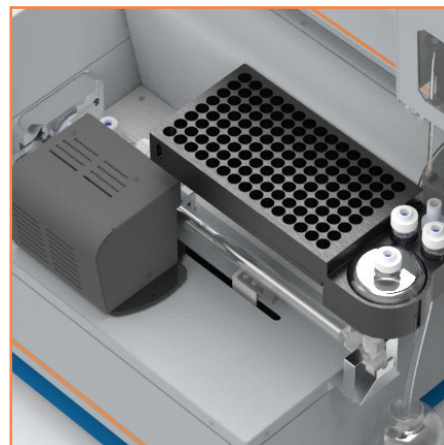
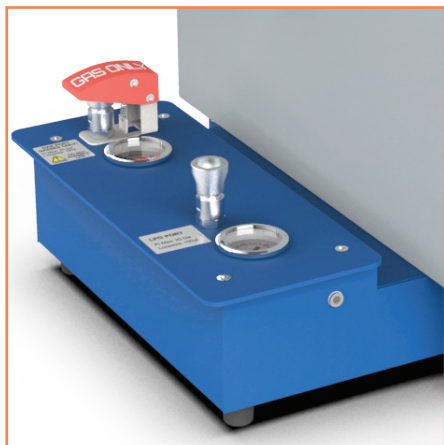


### NEXIS GM: AUTOMATIC AND SAFE GAS/LPG SAMPLING

The NEXIS GM is available with built-in safety features to give your lab confidence. It is available in three different configurations and designed to handle pressurized LPG /Gasses and/or non-pressurized gas samples (e.g.Tedlar bags) in a single gas sampling device. The NEXIS GM module is fully software controlled to load and inject a pressurized Gas / LPG sample through a sample loop design that is fully automatic into the NEXIS analyzer.

#### KEY ADVANTAGES

- Calibration line based on only ONE single Gas / LPG or liquid standard
- Compact design with controlled NEXIS LINK software operation
- Safety sensor to ensure safe sample handling

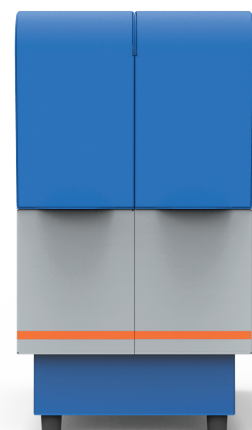


### PELTIER COOLED BOAT CONFIGURATION FOR REDUCED SAMPLE RUN TIMES

Faster analysis times can be achieved with use of a temperature controlled peltier cooled boat module to analyze light and heavy liquid hydrocarbons. This is an advantage for users with a wide range of liquid samples to operate more productively and minimize analyzer down-time

### TX ANALYSIS: MOST COMPACT AND EASE-OF-USE

The optional addition of a Total Chlorine module or having a NEXIS dedicated TX analyzer configuration makes the NEXIS model a most versatile combustion elemental analysis solution. For chlorine analysis, the NEXIS operates using a user-friendly, safe and compact micro coulometric titration module.



# NEXIS HAS YOUR APPLICATIONS COVERED

The compact and modular NEXIS analyzer is available in more than 8 different analyzer configurations with no impact on the bench space. The analyzer is designed to run trace level analysis within a few minutes and meet all types of customer application requirements.



## MARKET APPLICATIONS AT A GLANCE

Market Application	Total Sulfur	Total Nitrogen	Total Chlorine
Fuels (Diesel, Gasoline, Kerosene)	●		
Light and Heavy Liquid Hydrocarbons	●	●	
LPG & Gaseous Hydrocarbons	●	●	●
Natural Gas	●		
Condensates and Distillates	●	●	●
Lubricating Oils		●	
VGO's		●	
Aromatic Hydrocarbons	●	●	
High-grade chemicals	●	●	
Crude Oil			●
Biodiesel	●		
Ethanol	●		
Renewable liquids	●	●	●
UCOME & Fatty Acids	●	●	
Palm Oil			●
Polymers (PE, PP)		●	
Additives		●	

Heater status		
	Setpoint	Actual
Furnace 1	1000	995 °C
Furnace 2	1000	995 °C
Inlet	500	495 °C
NOx Converter	320	315 °C

Flow status		
	Setpoint	Actual
Argon/Helium	100	95 ml/min
Oxygen (primary)	300	295 ml/min
Oxygen (turbo)	100	93 ml/min
Oxygen (ozoneator)	100	95 ml/min

PMT settings		
	Setpoint	
TN PMT	0	V
TSUV PMT	700	700 V

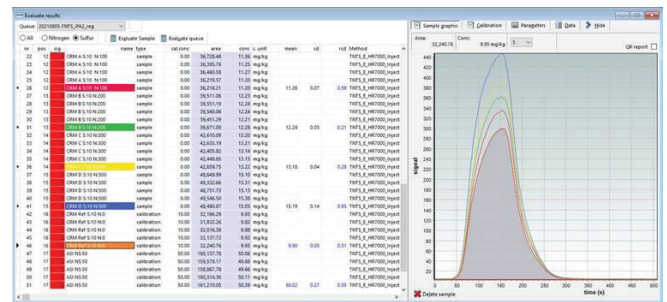
  

Tray settings		
	Setpoint	Actual
Cooling		0 °C

## NEXIS LINK SOFTWARE WITH DSP TECHNOLOGY™ : INTUITIVE FULL ANALYZER CONTROL WITH ULTRA LOW DETECTION LEVELS

The comprehensive and easy to use NEXIS LINK software supports the operation, full instrument and sampler parameters control and data handling of the NEXIS Combustion Elemental Analyzer. A user-friendly diagnostics and clear icons design allow simple analyzer operation at a glance.

System status Queue manager One-Cal Evaluate results Method Queue editor



### KEY ADVANTAGES

- Real time measurement curves with peak overlays
- Export data to LIMS using common file formats such as XML, CSV, Tab, XLSX
- TRINITY™, autosampler and Gas / LPG sampling operation and control
- Integrated calculation and calibration methods for analysis of Gas and Liquid samples
- Enhanced automatic ranging, calibration and analysis functionalities



# EST - TSHR SOLUTIONS FOR COMBUSTION ELEMENTAL ANALYSIS

## NEXIS CONFIGURATION AND ORDERING INFORMATION

Analysis	NEXIS horizontal	Item No. 230V	Item No. 115V
Total Sulfur	●	C02010001	C01010001
Total Nitrogen	●	C02010002	C01010002
Total Sulfur / Nitrogen	●	C02010003	C01010003
Total Chlorine	●	C02010012	C01010012
Total Sulfur / Nitrogen / Chlorine*	●	C02010014	C01010014

\* Not simultaneous

### ABOUT EST - TSHR

Our combustion analyzers help laboratories meet challenging industrial issues by providing reliable instrumentation to have high performance with accurate, and precise results and compliance with international standard methods at a low cost of ownership, high productivity and safe operation.

Over the past 30 plus years, focusing on manufacturing, selling, and supporting solutions that enable customers has helped EST with TSHR to become one of the largest privately held analytical instrument companies in the world. Our Customer Focused core competency separates us from others and has resulted in the company becoming a recognized global leader in the industries it serves. We are a sustainability-driven company committed to creating a greener future. Through innovative practices and eco-friendly solutions, we strive to minimize our carbon footprint and conserve natural resources.

We are committed to deliver superior and local customer service worldwide with a network of over 40 distributors. Our headquarters are in Cincinnati OH, USA with locations in Rotterdam, NL and Beijing and Guangzhou, CN.

EST - TSHR, **YOUR PARTNER IN COMBUSTION ELEMENTAL ANALYSIS**

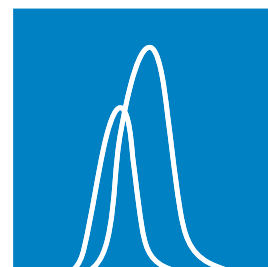
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Visit our website to find your local TSHR distributor



YOUR PARTNER IN COMBUSTION ELEMENTAL ANALYSIS