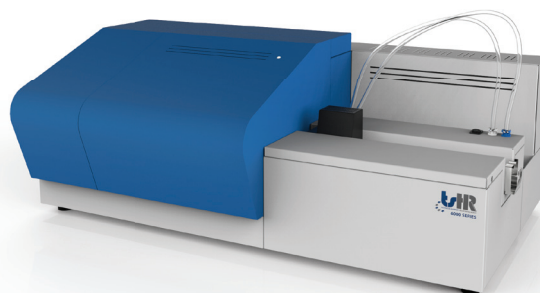# TN 6000

TSHR international introduces the Total Nitrogen analyser, model TN 6000, as a trace level analyser that gets you the necessary data quickly, reliable and accurately. The TN 6000 is matrix independent and complies fully with the international industrial and environmental standards.
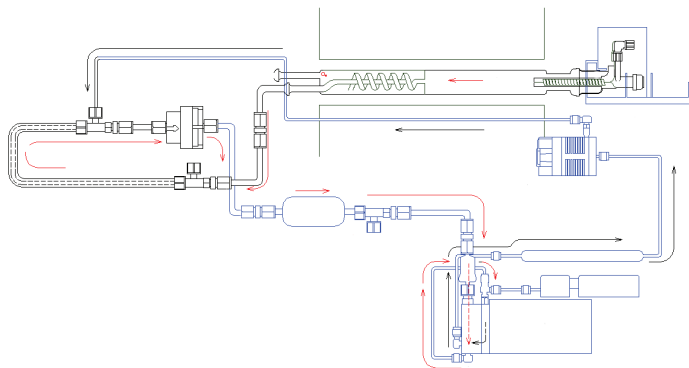
The TN 6000 provides the following benefits:

- **Versatility.** The TN 6000 analyses solid samples from very low levels (30 ppb) to very high concentrations (5.000 - solids, 10.000 liquids ppm)
- **Flexibility.** The TN 6000 is easily adaptable to new types of analyses (from nitrogen to sulfur and/or chlorine)
- **Productivity.** The TN 6000 works around the clock, equipped with a HR 7000 liquid auto sampler directly into the boat module
- **Reliability.** The TN 6000 ensures complete combustion with minimum maintenance

TSHR TN 6000 Analyser

The TN 6000 system is designed for fast and efficient analysis of total nitrogen (TN).
The TN 6000 system supports the use of different modules, like liquids and solids which are used for the introduction of various sample matrices into the furnace. The NO is detected by the principal of chemiluminescense, this analysis technique is relative and make that a calibration line is required. The nitrogen detector in the TN 6000 is designed to have the option to expand a TS/UV detector on it, in that case it is possible to run simultaneously nitrogen ad sulfur.

Solids module

For analysis of heavy hydrocarbons and solid samples, the TSHR boat introduction module is the key. The automatic boat driven concept controlled by Athena software, provides the optimum solution for many applications. The high sample load capacity and integrated septum stopper minimizes weighing errors and eliminates problems caused by non-homogeneous samples. The module is supported with quick gas connectors for oxygen and carrier gas (Ar/He).

Extra options:
The TN 6000 can be expand with a sulfur (UV) and/or a chlorine TX module.

* Flowpath TN 6000

ANALYTICAL SPECIFICATIONS

Parameter	TN Liquids	TN Solids
Working ranges	0,03 – 5.000 ppm	0,5 – 10.000 ppm
Detection Limit	30 ppb	30 ppb
Sample Matrix	Heavy hydrocarbons, plastics, Solids	
Quantity of sample	0,1 – 100 mg	
Analysis time	< 10 minutes	
Relative standard deviation	< 5%	

TECHNICAL SPECIFICATIONS:

Parameter	6000 series
Dimensions	960 (W) x 390 (H) x 590 (D) mm 37,7 (W) x 15,4 (H) x 23,2 (D) inches
Furnace Voltage	2 x 24 V, 50/60 Hz
Furnace power	2 x 300 W
Furnace Temperature Sensor	2 x Ni-Cr/Ni
Furnace configuration	Dual temperature controlled
Furnace Temperature	1250 °C Max
Type of Analyses	**Total Nitrogen** *(extra options: Total Halogens and Total Sulphur)*
Detection Principle	**Chemiluminescene** *(extra options: Coulometrics and Pulsed UV-Fluorescence)*
PC operating system	Windows 7 or higher
Computer	Intel Core i3 / AMD Phenom or better
Software	Athena
Regulatory compliance	ASTM, IP, UOP, ISO

Facility Requirments

Voltage	115/230 V, 50/60 Hz
Power	1200W
Gas connector	1/8" swagelok
Gasses	O_2 (99,6%) medical grade 2.6 Ar or He (99,998%) technial grade 4.8
Gas pressure	2 – 3 Bar (30-45 psi)
Ambient temperature	5 – 35 °C (41 – 95 °F)

For Technical support:
technicalsupport@tshrinternational.com

For Sales:
sales@tshrinternational.com

For Administration:
administration@tshrinternational.com

For all other questions:
info@tshrinternational.com

www.tshrinternational.com

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For more information contact your local dealer.