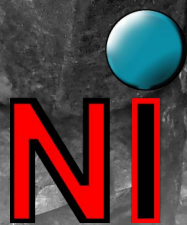


Multiple Sample Thermogravimetric Analyzers With Additional External Balance For Increased Throughput and With Operational Software In Windows



Navas Instruments TGA - 3000 Series

For: Coal, Coke,
Cement, Food, Iron
Ore, Bauxite And
Other Ores, etc ...

Determination of:
Moisture, Volatile Matter, Ash
Fixed-Carbon, and LOI
(Loss On Ignition)

The Navas Instruments TGA-3000 will provide fast and consistent results with an easy to use Windows operational software

Auto-recovery from mains power failure.

Single furnace or dual furnace controlled by one single PC

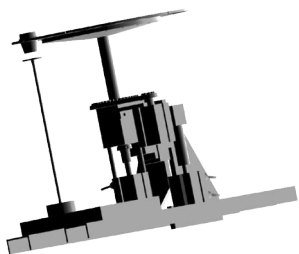
Controlled with desktop PC or laptop through standard USB connection



Benefits

- **Productivity:** The external balance allows to obtain the initial weights of crucibles and samples (And optionally crucible-covers) during analysis time
- **More throughput** than competitors TGAs: No need to cool down to room temperature but to 70-200 degrees centigrade since the samples are weighed outside the furnace the samples do not lose weight during the weighing, in competitors TGAs the initial weights of crucibles and samples are obtained inside the furnace, this makes necessary to cool down to room temperature with a waste of time, In Navas TGA-3000 the first run can also get the initial weights of crucibles and samples inside the furnace if the furnace is at room temperature
- **Ease of use:** Easy to use software in Windows and easy to use diagnostics screen

Productivity, Throughput And Ease Of Use



1

The TGA - 3000 Analyzes multiple samples simultaneously using a carousel with orifices that hold the crucibles with samples inside
The carousel moves up/down and rotates to deposit the crucibles on the balance pedestal
The balance is below the furnace and the pedestal goes through a small orifice in the furnace

2

This translates to productivity and throughput
Several models available: (11, 15, 19 and 23 samples)



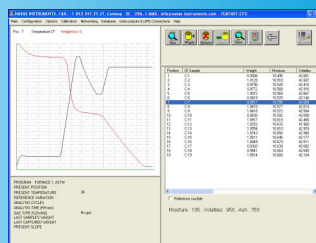
3

All being measured with 4 place precision balance with digital display for calibration and diagnostics
External balance for increased productivity
External balance allows obtaining initial weights of crucibles and samples during analysis time
Balances with LCD display for easy service

4

Windows based software for flexibility and functionality

Configurable parameters for all slopes:
Temperatures, ramp rates, gases, etc ...



Time	Weight	Temperature
0.00	1.0000	100.00
1.00	0.9999	100.00
2.00	0.9998	100.00
3.00	0.9997	100.00
4.00	0.9996	100.00
5.00	0.9995	100.00
6.00	0.9994	100.00
7.00	0.9993	100.00
8.00	0.9992	100.00
9.00	0.9991	100.00
10.00	0.9990	100.00
11.00	0.9989	100.00
12.00	0.9988	100.00
13.00	0.9987	100.00
14.00	0.9986	100.00
15.00	0.9985	100.00
16.00	0.9984	100.00
17.00	0.9983	100.00
18.00	0.9982	100.00
19.00	0.9981	100.00
20.00	0.9980	100.00
21.00	0.9979	100.00
22.00	0.9978	100.00
23.00	0.9977	100.00
24.00	0.9976	100.00
25.00	0.9975	100.00
26.00	0.9974	100.00
27.00	0.9973	100.00
28.00	0.9972	100.00
29.00	0.9971	100.00
30.00	0.9970	100.00

5

Powerful Open Database Connectivity (ODBC) with filtering, sorting, configurable data exports to LIMS (Laboratory Information Management Systems) and to Microsoft Excel in TXT, CSV and XLS files or to serial port

6

All the electric and pneumatic parts in the TGA can be acquired in the market
With no dependency on Navas Instruments, However for our customers convenience we do maintain a complete parts and service department
All sensors are magnetic not affected by dust
Other TGA manufacturers use special electronics and parts that can only be purchased from the manufacturer at very high prices