Diao DIALLO, *Sales Engineer*
Eraly & Associés - *France*

Presentation

1- Eraly

2- PYROXYDIZER

3- Software (HELIOS)

9th OBT W - ANTWERP 2023

ERALY & ASSOCIÉS

- Since 1972
- Located - outskirts of Paris
- 9 Employes + 2 Shareholders
- 4 R&D Partners
- 17 Distributors

Sulfur, Nitrogen, Chlorine, Pyroxydizer for Tritium and 14C, Furnaces

TUBE FURNACES

Furnace 3 heating zones

Furnace type «well »

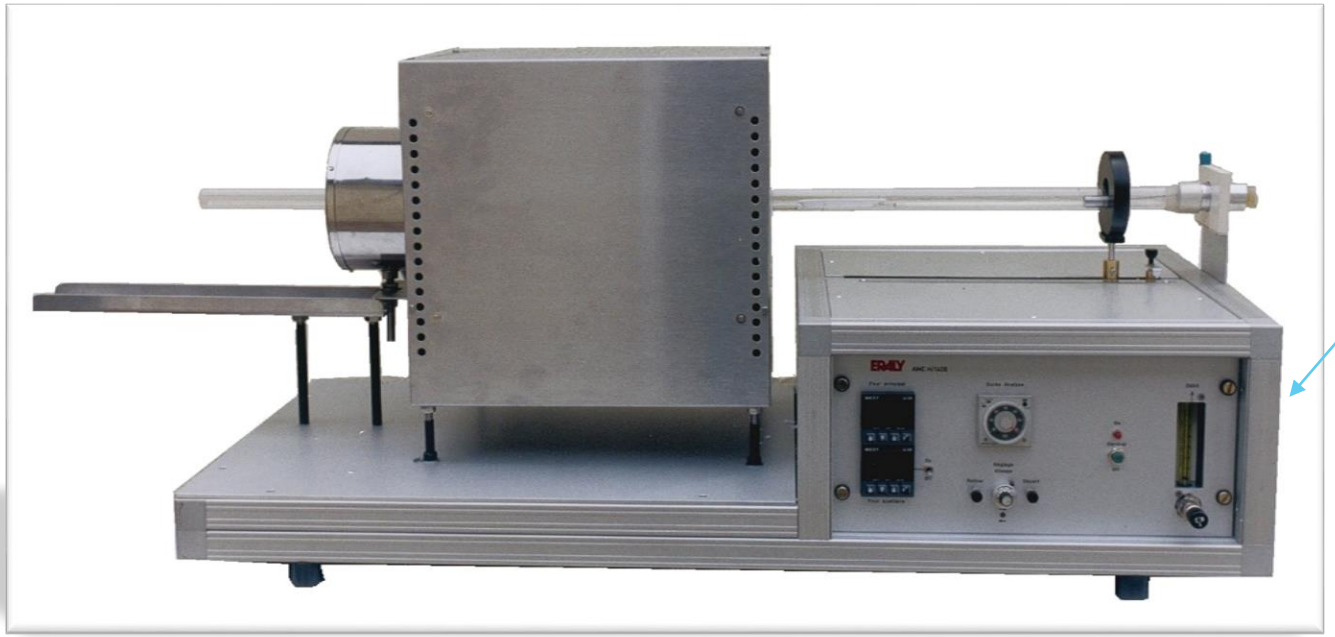
Furnace with cooling system

Small Furnace (Ø 1 cm)

Split tube furnace

PYROXYDIZER - 1992

Oxygen only.

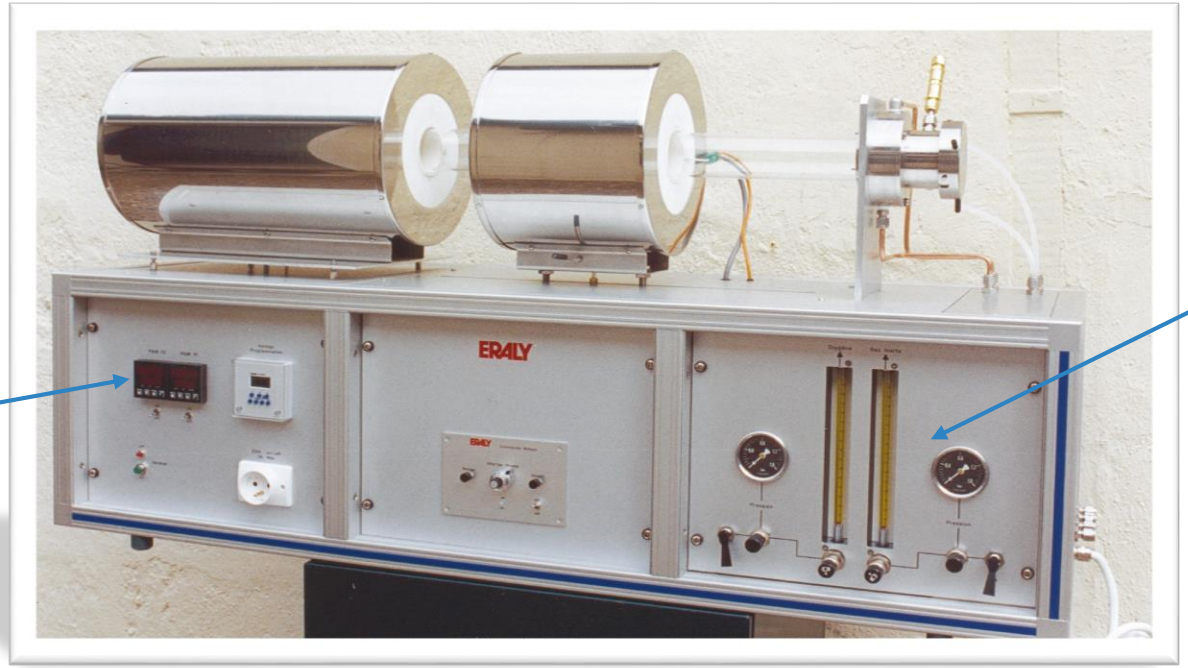


Control box, temperature and flowrate

AMCH / Furnace + combustion tube **with Common entrance** for gas and sample

PYROXYDIZER - 1997

Two gases :
Oxygen and Inert.



Control box, temperature.

Pressure and flowrate.

Pyro-Oxidation / Furnace + combustion tube with **separated entrances** for gases and sample

PYROXYDIZER - 1999

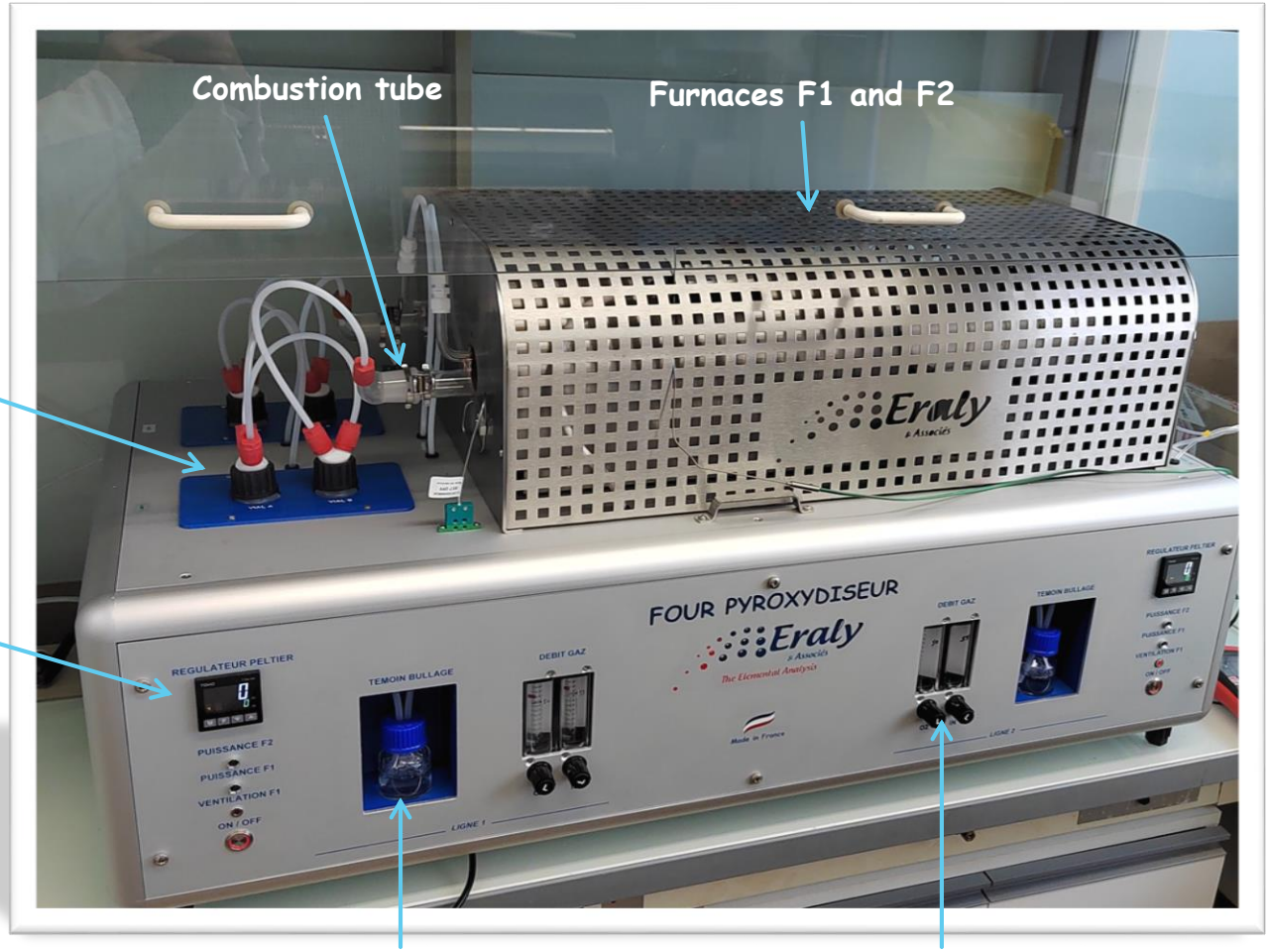
Two gases :
Oxygen and Inert.

Control box, temperature.

Pressure and flowrate.

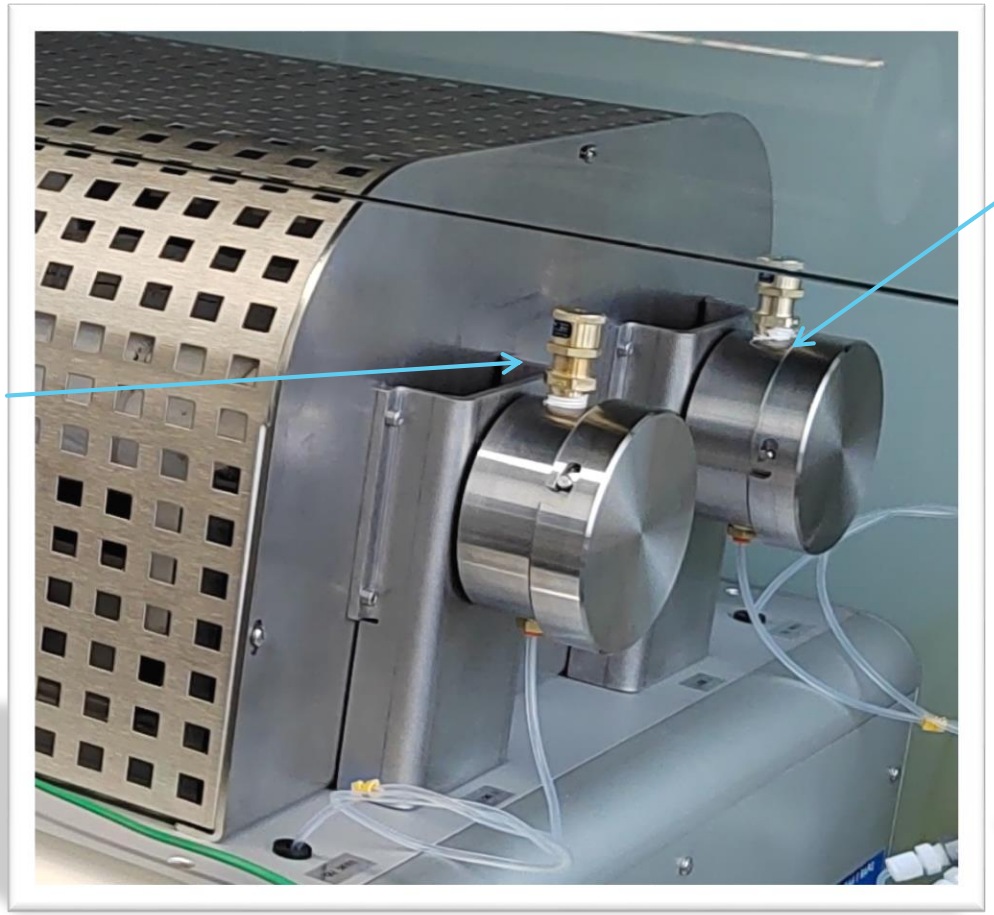
AMCH / Furnace + combustion tube with **separated entrances** for gases and sample

PYROXYDIZER - FRONT FACE



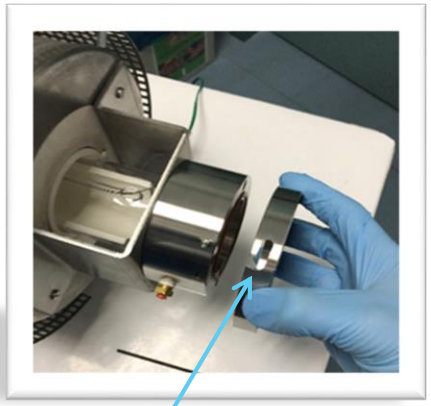
- Compact
- Reliable and robust
- Could be customized
- Monitored by software

PYROXYDIZER - VALVE & FLANGE



Closing flange

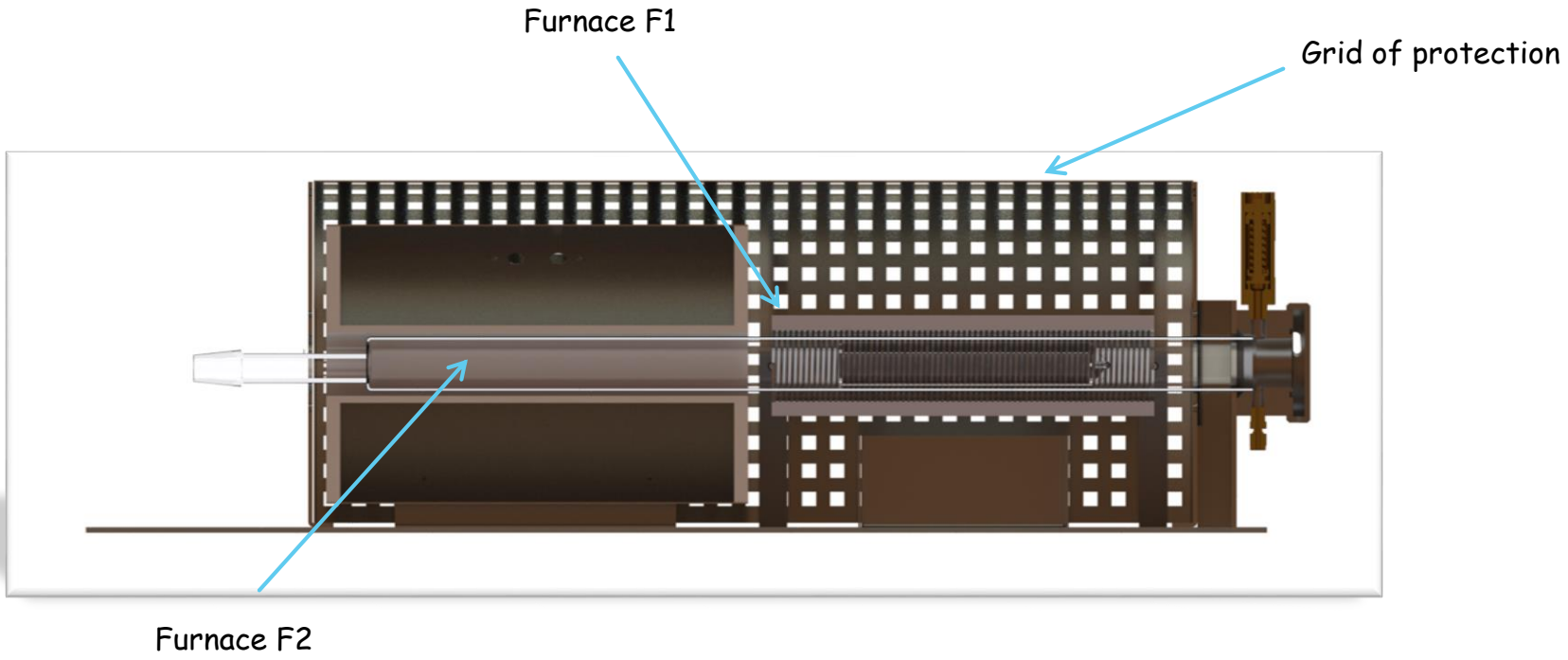
Safety valve



Removable cover

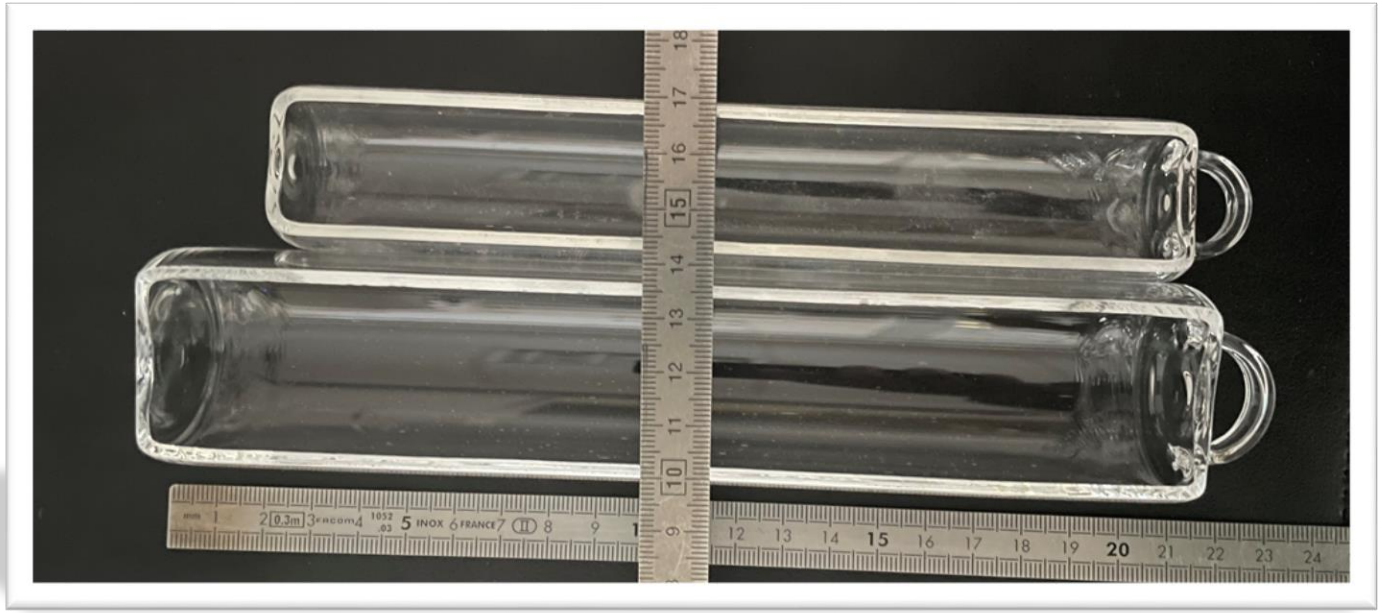
PYROXYDIZER - FURNACES F1 & F2

Sectional view of furnace F1 and furnace F2



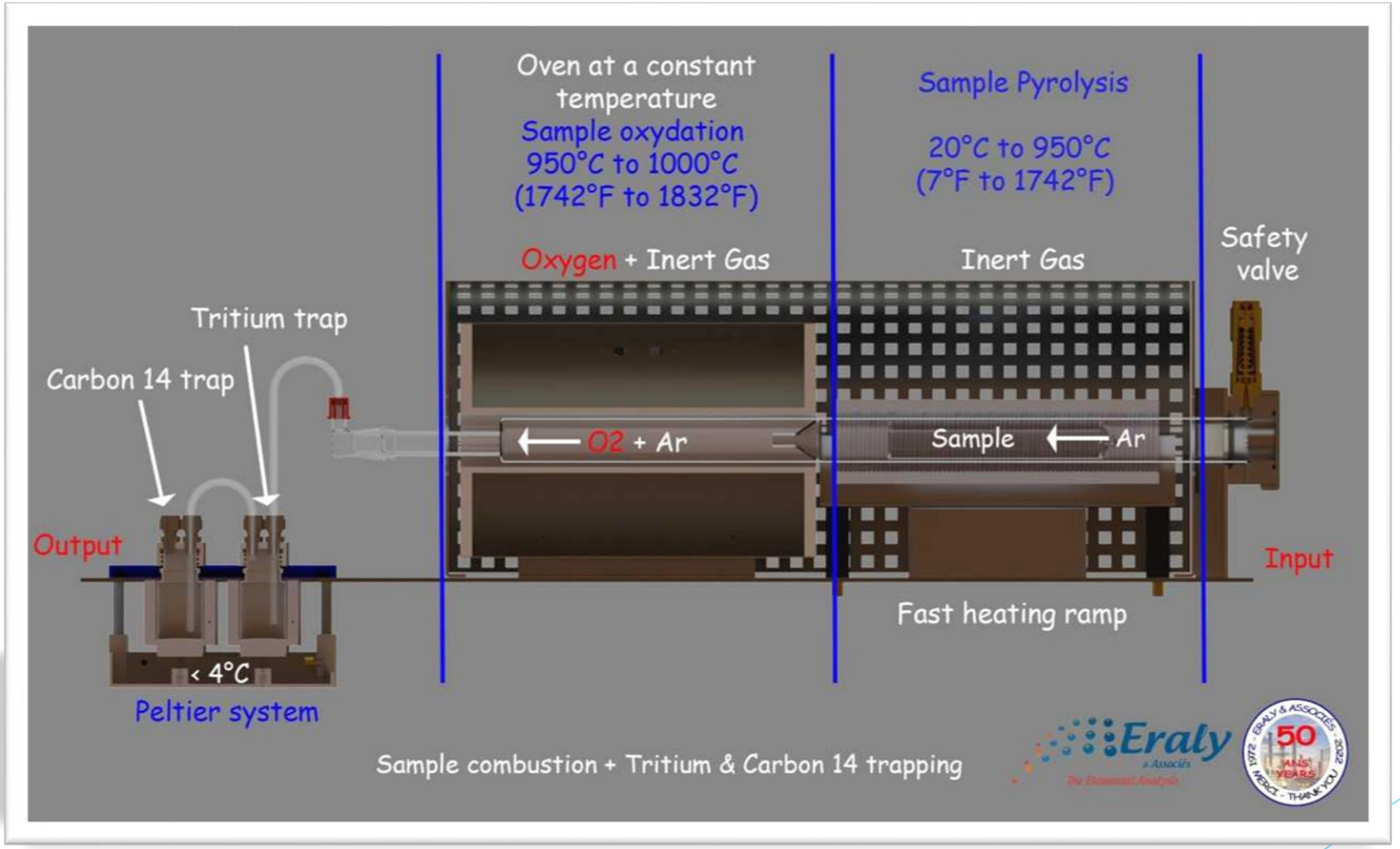
PYROXYDIZER - COMBUSTION BOAT

QUARTZ BOAT – SMALL AND MEDIUM VOLUME



Combustion boat,
Available in quartz or in porcelain.
Adsorbant cartridge for liquid and viscous samples.

PYROXYDIZER - PRINCIPLE



PYROXYDIZER - TECHNICAL SPEC.

Combustion lines:	1 to 3 works tubes
Sample size:	8 to 12 cm^3, up to 250 cm^3
Combustion time:	20 minutes to 4 hours (according program)
Back to room temperature:	15 minutes to 1h30,
Recovery:	better than 97% for 3H and 14C
Memory effect:	negligible

Supply:

Oxygen - 3 bar / 100 to 150 ml/min

Argon - 3 bar / 100 to 150 ml/min (or Helium)

Electric, 1200 W/1 phase or 3 x 800 W / 3 phases

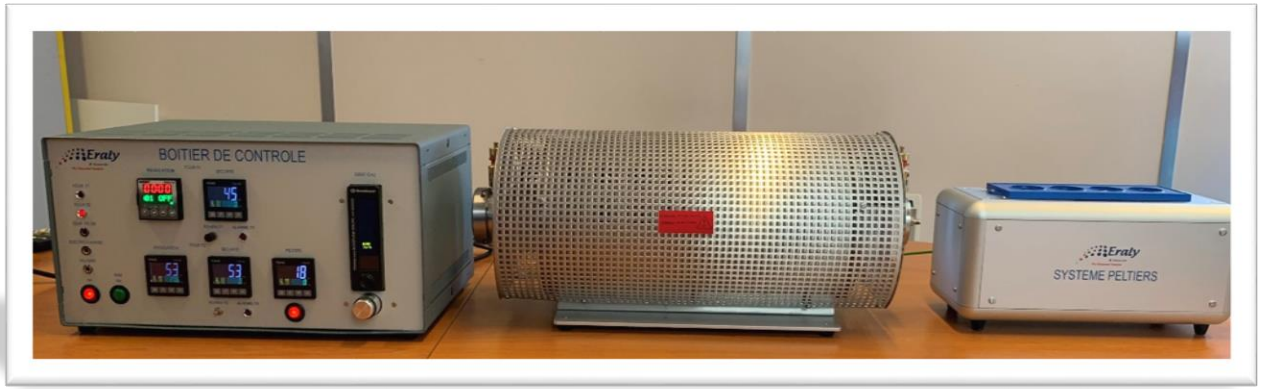
Features

Wide variety of samples:
Soil, Sediment, Solvents, Algae, Leaves, Fish, Cement, Concrete, Plastics, food……

Efficent and rapid:
up to 7 samples per day per work tube.

PYROXYDIZER - CUSTOMIZATION

A SYSTEM IN THREE SEPARATE UNITS

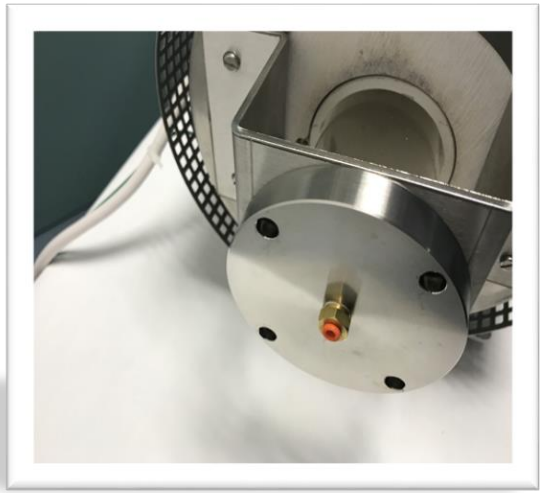


Help to save space in your laboratory; Suitable for installation in glove box.

Vials support, standard size with adapters for more sizes.

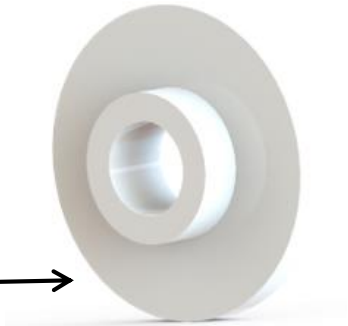
PYROXYDIZER - CUSTOMIZATION

Inlet of combustion tube
With stopper.



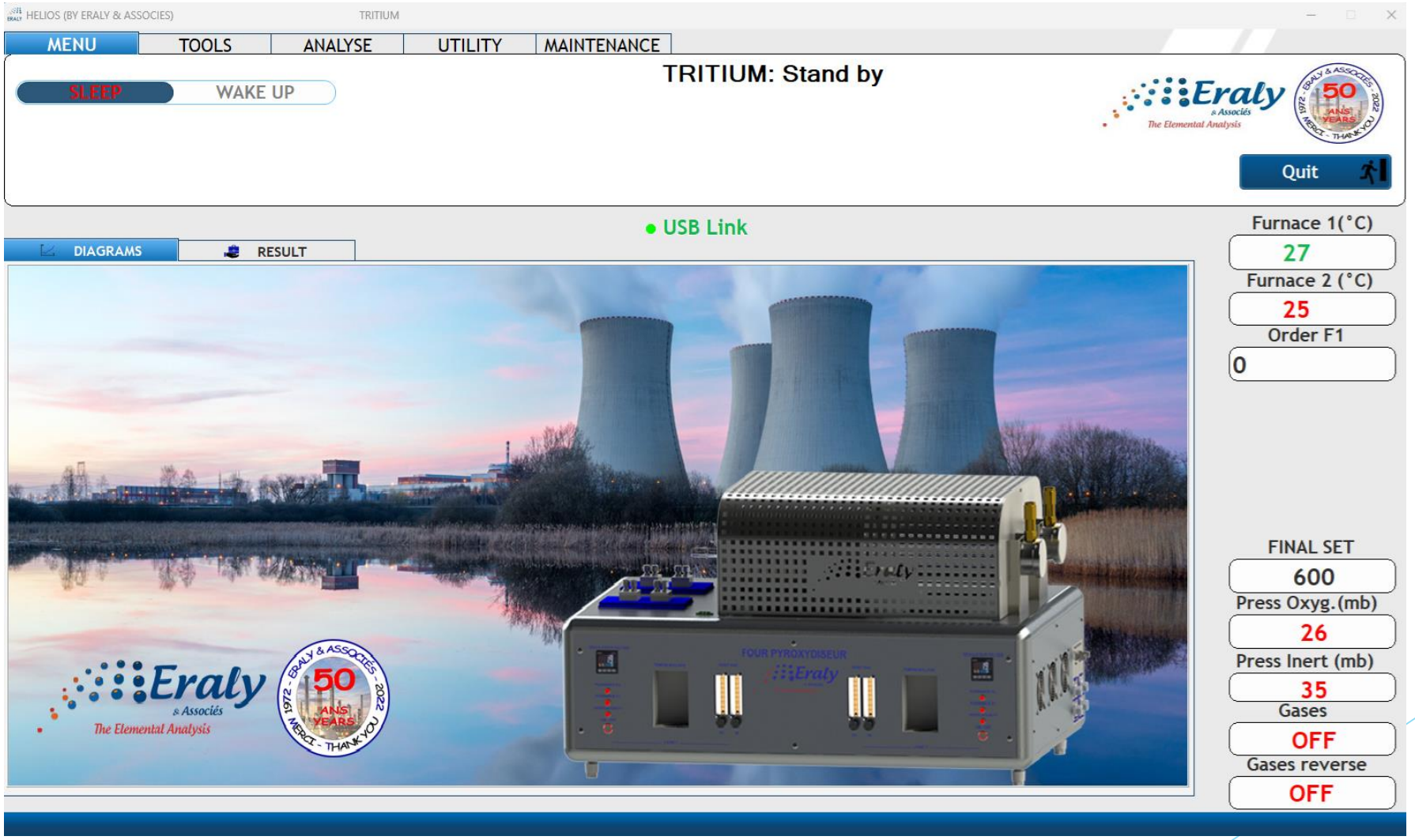
Outlet of
combustion tube
With secure cap.

Adapter for
combustion tube.

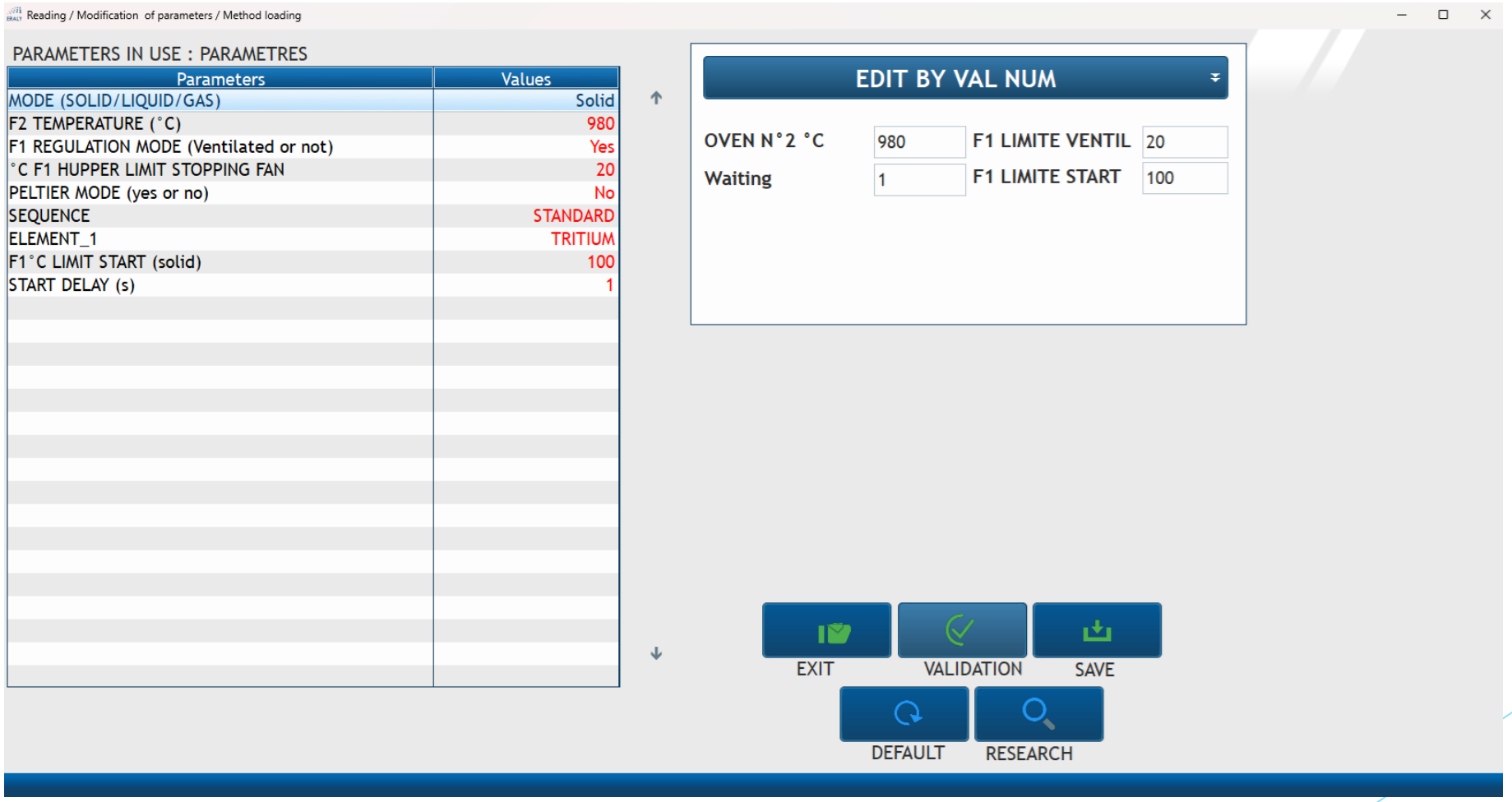


SOFTWARE - HELIOS

MAIN WINDOWS - HELIOS

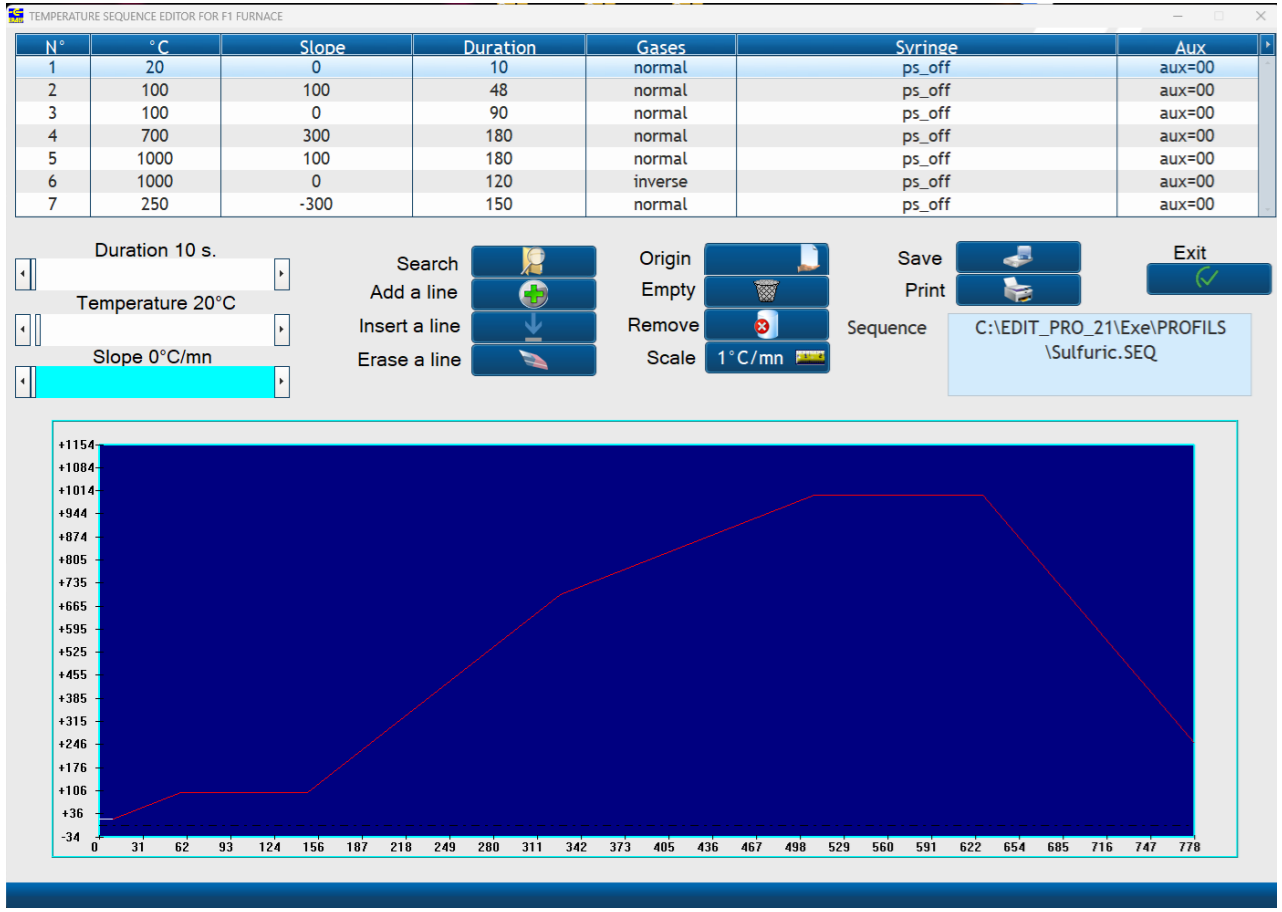


PARAMETERS - HELIOS



HEATING PROGRAMS - HELIOS

Helps to dry, to heat and to burn (completely or partialy) your samples.



For example:

A segment at around 90 °C for a drying phase.

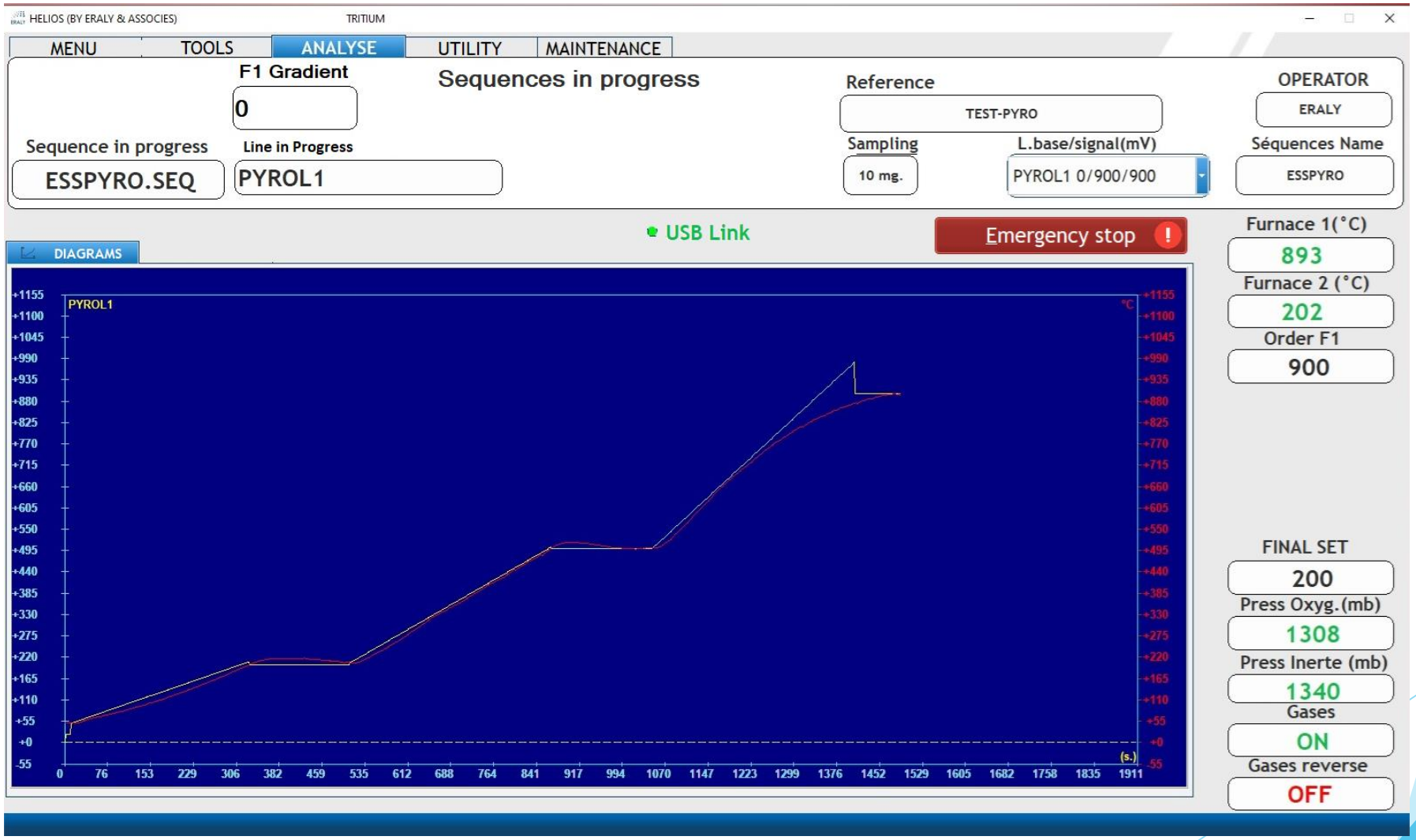
A slope of 40 °C / min to 300 °C to begin removing the volatiles.

A slope of 200 °C / min up to 950 °C to complete the pyrolysis.

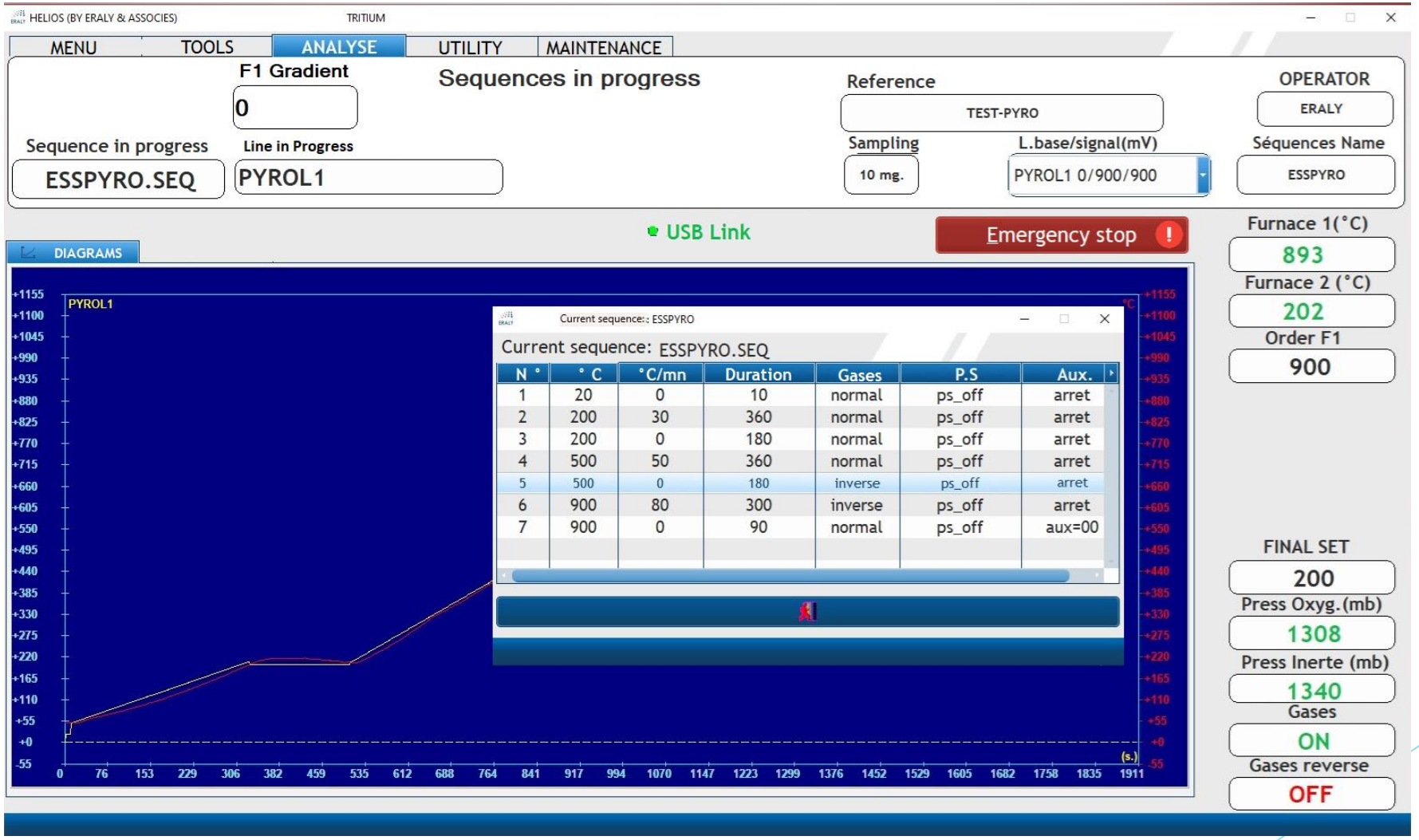
A bearing at 950 °C with inversion of gas to oxidize any residues.

A downward slope from -200 °C / min to 500 °C.

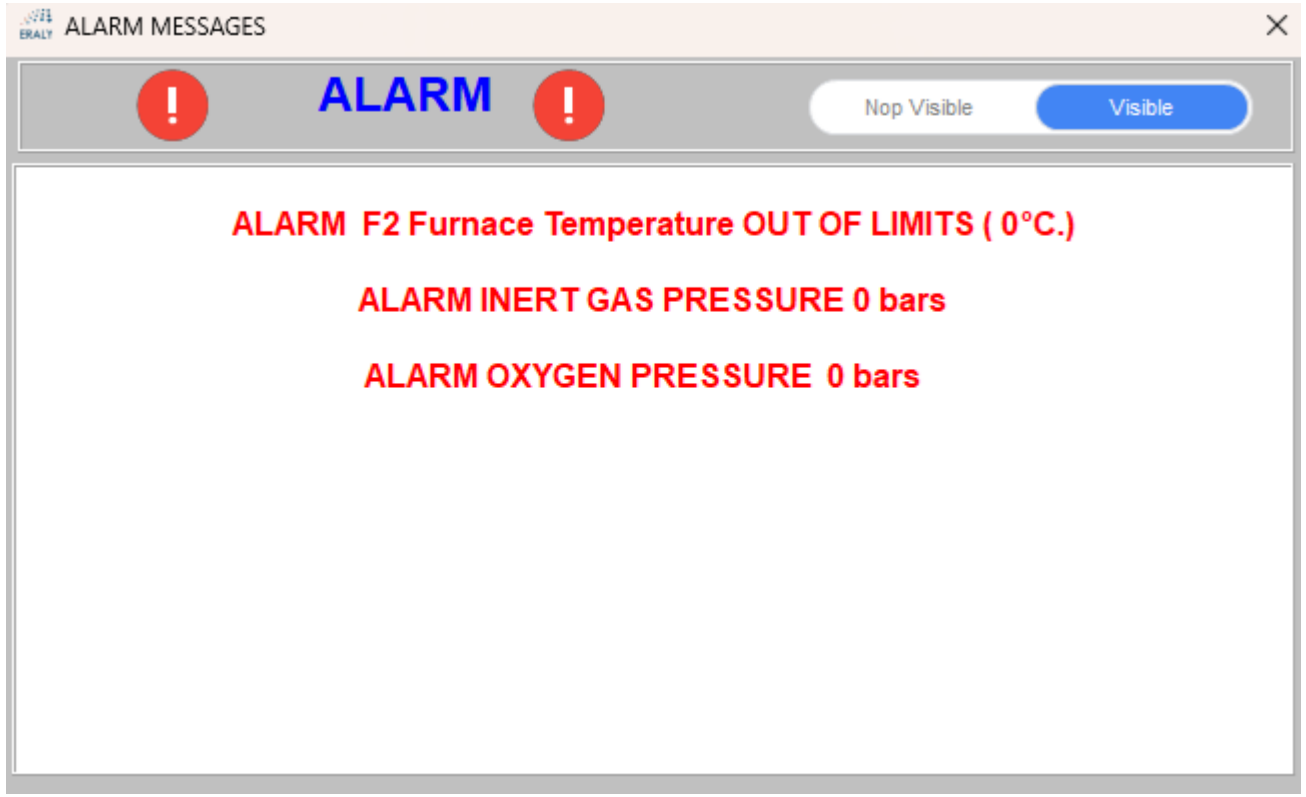
GRAPH OF COMBUSTION - HELIOS



CYCLE STATUS - HELIOS



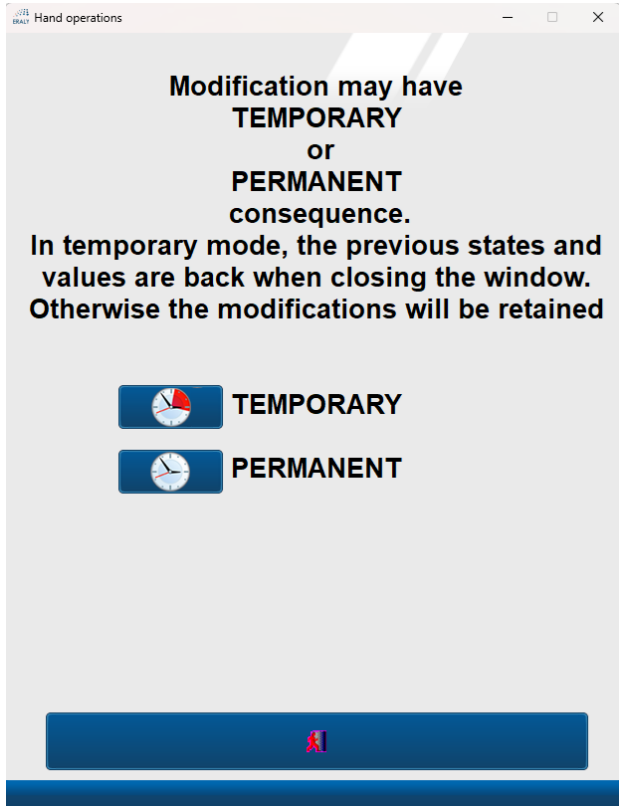
SAFETY & ALARMS - HELIOS

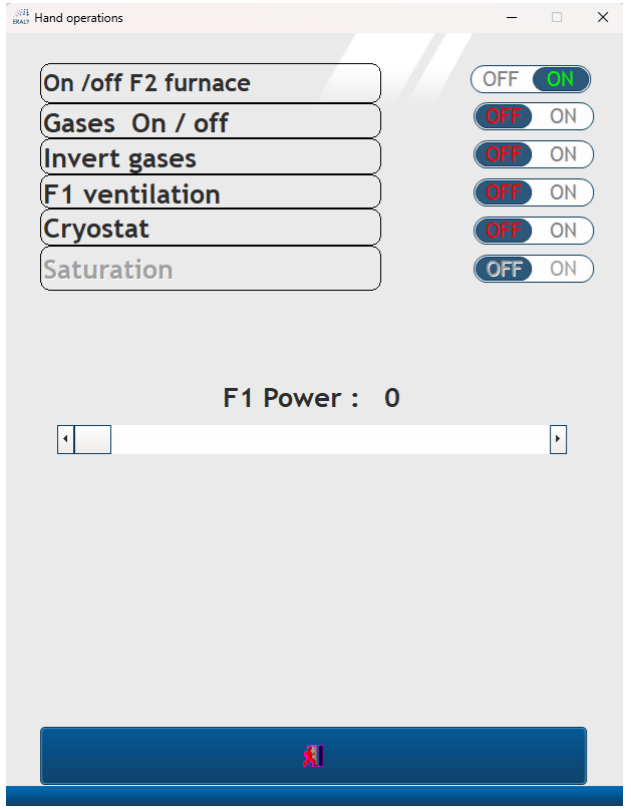


- ✓ **Impossible to run a combustion when all conditions aren't good….high safety.**

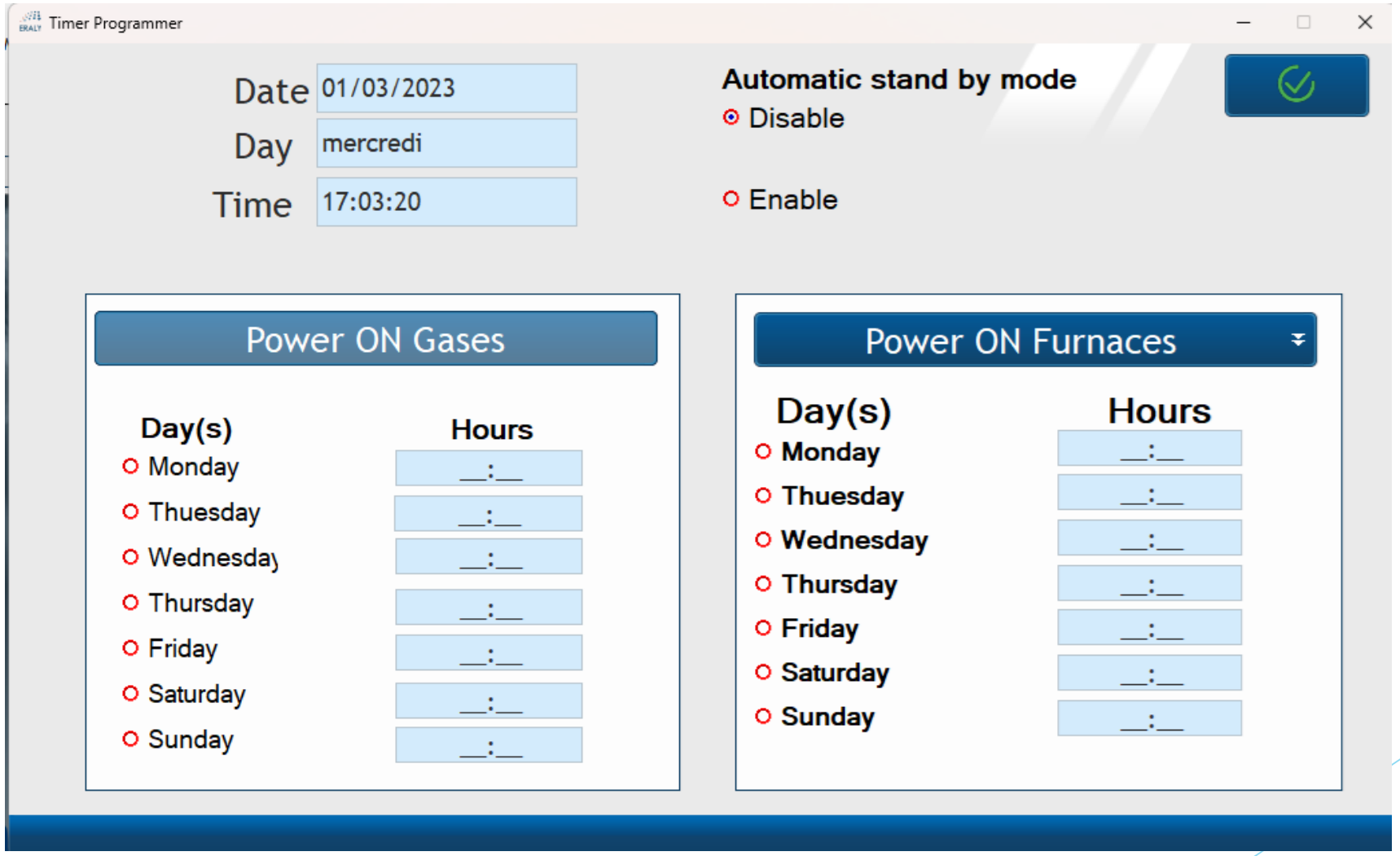
START / STANDBY - HELIOS

Stop just: gas, furnaces, ventilation, cooling system

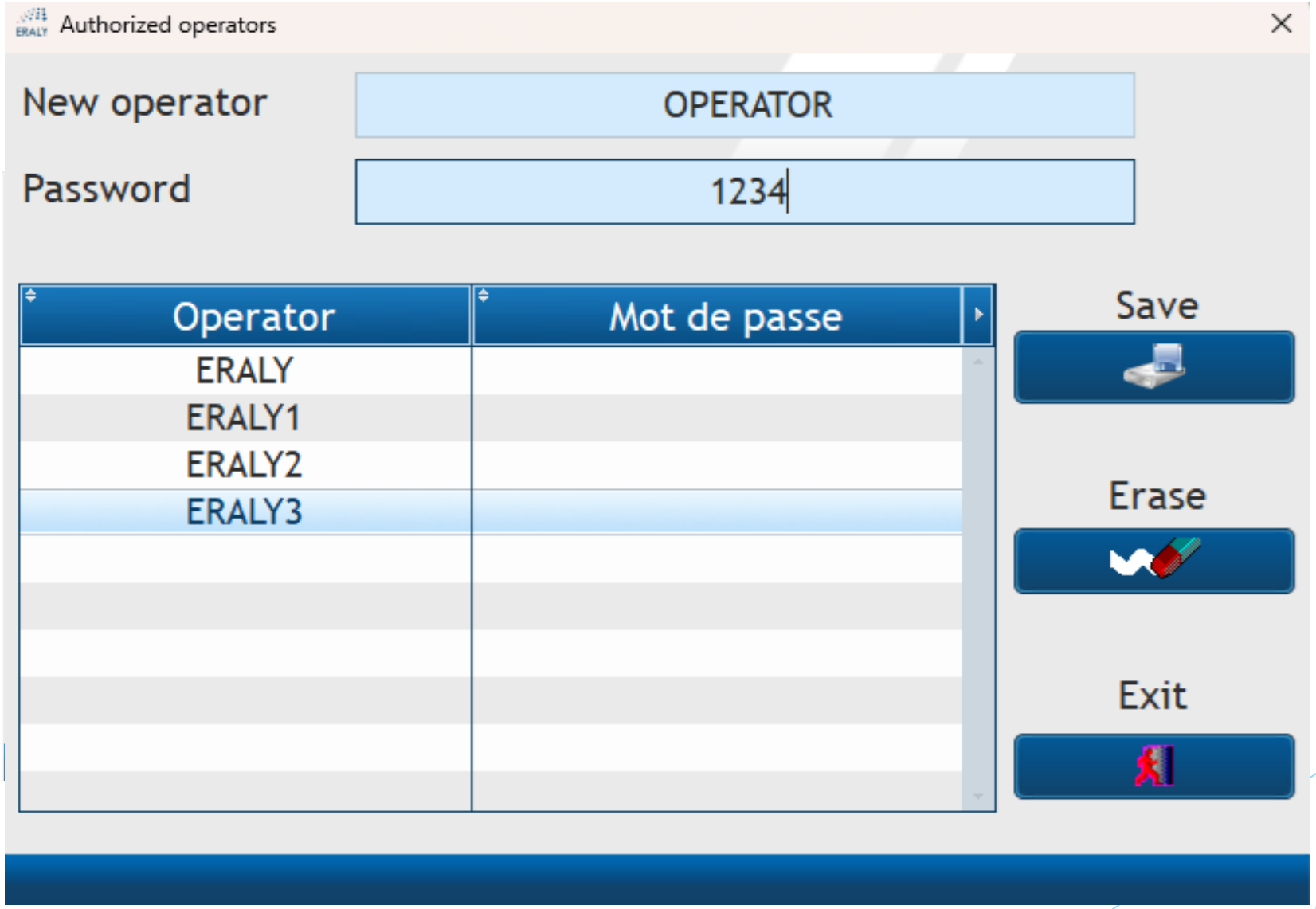




START / STANDBY - HELIOS



OPERATOR ACCESS - HELIOS



SPARE PARTS / ALERT - HELIOS

MANY THANKS FOR YOUR ATTENTION