

# MULTI-PROCESS UNIVERSAL TUBULAR FURNACE



**PYROX**

THERMIQUE MATERIAUX

This multi-process universal tubular furnace sets itself apart for its incomparable reliability, temperature homogeneity, ease of use and maintenance compared to existing market solutions. It is aimed to support very demanding research teams who want high-performances, reliability level compatible with long-term hot mechanical tests. Quality and robustness of built make it an easy to operate furnace that will last for long with low maintenance.



## ABOUT US

Pyrox Thermal Materials is specialized in the design and manufacturing of electric furnaces for laboratories as well as R&D centers.

Thanks to the expertise it has acquired over the years, it is now the French leader in laboratory furnaces.

With its know-how, Pyrox's solutions are the best fit to support today's & tomorrow's leaders in material conception & treatment.

David D'ATTOMA  
Chief Sales Officer



### A modular furnace

This multi-process tubular furnace has been designed with the maximum modularity to be used horizontally or vertically. Thanks to the addition of a process tube adapted to your needs (depending on temperatures, atmospheres and loads), this furnace comes in different versions.



### A performant regulation system

Our system offers: fast, accurate response, temperature stability ( $\pm 1^\circ\text{C}$ ), fewer errors and optimised energy consumption. It contributes to improving your products.



### A color touchscreen 7 inch panel

This HMI ensures the complete management of your equipment. It offers user-friendliness, setting, data acquisition, archiving process.



Let's innovate together to reinvent today's materials and discover tomorrow's.

#### AET GROUP

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## MULTI-PROCESS UNIVERSAL TUBULAR FURNACE 1500°C

A multi-process universal tubular furnace that offers the best quality & reliability, ideal for research laboratories that perform demanding heat tests and treatments.



Made in France



After-sales service



Recognition of excellence



### Key elements

- 1500°C Max Temp / Type S or B Thermocouple
- 1 or 3 heating zones
- 50-85mm internal useful diameter
- Max power: 4kW single-phase, 8kW three-phases
- Gas options: up to 3 neutral gas lines (air, nitrogen, argon, helium) option for other gases (H<sub>2</sub>)
- Vacuum options: primary, secondary vacuum
- Post-combustion treatment option for exhaust gases (without gas flaring)
- Thermal homogeneity  $\pm 5^{\circ}\text{C}$
- Monozone or trizones (load measurement TC option)
- Thermal screens adapted to process needs
- HMI interface: 7-inch color touchscreen
- TCP/IP Ethernet connection
- Vertical stand available

### Technical specifications\*

Ref*	Heating zones	Max temp °C ***	Internal diameter	Heated length (mm)	Speed of heating ramp with alumina tube (°C/min)	Tube length for air process (mm)	Tube length for gas & vacuum process (mm)	External dimensions H+L+D mm without tube**	External dimensions H+L+D mm with tube**	Homogenous length mm $\leq \pm 5^{\circ}\text{C}$	Power max (kW)	Tension feeding in V & Hz	Weight (kg)**
UTFH-1500-01-150-50	1	1500	50	150	5	400	850	460 x 400 x 560	460 x 900 x 560	> 50	4	230V (1 phase + N + T) 50Hz	30
UTFH-1500-01-300-50	1	1500	50	300	5	550	1000	460 x 550 x 560	460 x 1050 x 560	> 100	4	230V (1 phase + N + T) 50Hz	35
UTFH-1500-01-450-50	1	1500	50	450	5	700	1150	560 x 700 x 560	560 x 1200 x 560	> 300	8	400V (3 phases + N + T) 50Hz	65
UTFH-1500-03-450-85	3	1500	85	450	5	700	1150	560 x 700 x 560	560 x 1200 x 560	> 300	8	400V (3 phases + N + T) 50Hz	65
UTFH-1500-03-600-85	3	1500	85	600	5	850	1300	560 x 850 x 560	560 x 1350 x 560	> 450	8	400V (3 phases + N + T) 50Hz	70

\* Subject to technical changes

\*\* Without electrical box

\*\*\* 1700°C max for the horizontal version / 1600°C max for the vertical version



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**1500°C Max****Horizontal****PYROX**

THERMIQUE MATERIAUX

**MULTI-PROCESS****UNIVERSAL TUBULAR FURNACE - 1500°C**

PRODUCT	Number of heating zones	Diameter Øint process tube (included)	Heating length (mm)	Length homogenous (mm) <±5°C
UTFH-1500-01- 150-50	1	50	150	> 50
UTFH-1500-01- 300-50	1	50	300	> 100
UTFH-1500-01- 450-50	1	50	450	> 300
UTFH-1500-03- 450-85	3	85	450	> 300
UTFH-1500-03- 600-85	3	85	600	> 450

**AVAILABLE OPTIONS**

OPTION	DESCRIPTION
Sealed heads laboratory tube	A set of two sealed heads for laboratory tubes. Suitable for vacuum and/or gas processes.
Primary vacuum	Lubricated vacuum pump to generate a primary vacuum. Available accessories: manual valve, solenoid valve (pumping and return to atmospheric pressure), vacuum indicator.
Secondary vacuum	Dry turbo-molecular pump to generate a secondary vacuum. Available accessories: manual valve, solenoid valve (pumping and return to atmospheric pressure), vacuum indicator.
Process gas	Process gas lines (neutral, oxidising, hydrogenated 6%max) unit price. 3 lines maximum. Includes: manual valve, float flow meter, functional and safety pressure relief valve. Optional: massflow, HMI-controlled injection solenoid valve.
Thermocouple instrumentation	Thermocouple placed as close as possible to the load with sealed passage.
Commissioning and training	Installation, commissioning and training on site.

\* Prices and delivery times are subject to change without notice. Only orders received in writing and accepted in writing are binding on AET Technologies. Technical specifications are given for information only, we reserve the right to make any necessary changes. This document cancels and replaces previous versions. Prices shown are valid from 01/01/2024.



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