

# **HORIZONTAL TUBE FURNACES**

# HTF SERIES · UP TO 1600°C

STURDY DESIGN · BRICK INSULATION (23/26) AND FIBER INSULATION (300-400)

High Quality 24/7 Continuos-T° Tube Furnaces
Split / Universal Models (Vertical Operation Available)

### STANDARD FEATURES

- CE manufactured
- Maximum operating temperature: from 1150°C up to 1600°C
- 1,2,3 or 4 independent heating zones
- Compact and lightweight
- 24/7 continuous work capability
- Heating KANTHAL AF, SiC
- Low thermal mass insulation
- Built with low density ceramic bricks and ceramic fiber
- Double insulation includes air chamber
- Thermocouple type K, N and S
- Vertical Operation (Available)
- Spare parts easily replaceable by end user

### **FURNACE CONTROLS**

- Independent control box / under the furnace
- Solid state relay
- General safety switch
- General safety contactor
- PAD Digital control
  - PID parameters
  - Non-volatile memory
  - Microprocessor-based temperature controls
  - Alarm

### **CONTROL OPTIONS**

- Programmers up to 64 segments
- Data logger and programmer communication by Ethernet/ RS232
- Eurotherm EPC and Nanodac Series

### **SAFETY SHUT-OFF**

• Thermocouple break shut-off

### **ACCESSORIES**

- Safety alarm Class II. Over-temperature protection
- Controlled atmosphere system
- Vaccum system (1Mbar, x10-2 and x10-5
- Flow meter box (Gas supply systems)
- and more, ask for our full assortment!







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### **CHARACTERISTICS**

- Reinforced construction, A-304 case
- Refractory parts engineered to resist extreme temperature changes, and specific ceramic paste types applied according to temperature and work fatigue of each part.
- Heat resistance in refractory insulation of very low thermal conductivity coefficient.
- Split and vertical operation

### **SPECIFICATIONS**

Fully customized solutions by request We reserve the right to change technical specifications

Model	Heating lenght (mm)	Tube diameter (mm)	Outer dimensions			Power Kw	Voltage V	maximum Temperature °C	Maximum temperature limited work °C	Maximum temperarure in continous	Thermoc ouple	Control type	Heating Elements	Homogenius zone
			Н	w	D									
Universal tube fu	rnaces up to	1200°C (1100°	°C in cont	inous)										
HTF116020	200	20 to 60	530	400	365	2	220	1200°C	1150°C	1100°C	K	Ramp P.	Kanthal Wire	50
HTF116040	400	20 to 60	530	600	365	4	220	1200°C	1150°C	1100°C	K	Ramp P.	Kanthal Wire	100
HTF116060	600	20 to 60	530	800	365	6	220	1200°C	1150°C	1100°C	K	Ramp P.	Kanthal Wire	250
HTF116080	800	20 to 60	530	1000	365	8	220	1200°C	1150°C	1100°C	K	Ramp P.	Kanthal Wire	300
HTF1110020	200	70 to 100	530	400	365	2	220	1200°C	1150°C	1100°C	К	Ramp P.	Kanthal Wire	50
HTF1110040	400	70 to 100	530	600	365	4	220	1200°C	1150°C	1100°C	К	Ramp P.	Kanthal Wire	100
HTF1110060	600	70 to 100	530	800	365	6	220	1200°C	1150°C	1100°C	К	Ramp P.	Kanthal Wire	250
HTF1110080	800	70 to 100	530	1000	365	8	220	1200°C	1150°C	1100°C	К	Ramp P.	Kanthal Wire	300

Universal tube furnaces up to 1300°C (1200°C in continous)														
HTF136020	200	40 to 60	530	400	365	2,5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	50
HTF136040	400	40 to 60	530	600	365	5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	100
HTF136060	600	40 to 60	530	800	365	7,5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	250
HTF136080	800	40 to 60	530	1000	365	10	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	300
HTF1310020	200	70 to 100	530	400	365	2,5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	50
HTF1310040	400	70 to 100	530	600	365	5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	100
HTF1310060	600	70 to 100	530	800	365	7,5	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	250
HTF1310080	800	70 to 100	530	1000	365	10	220	1300°C	1250°C	1200°C	S	Ramp P.	Kanthal Wire	300

Model	Heating lenght (mm)	Tube Outer dimensions (mm) (mm)		Power Kw	Voltage V	maximum Temperature °C	Maximum temperature limited work °C	Maximum temperarure in continous	Thermoc ouple	Control type	Heating Elements (Silicon Carbide)	Homogenius zone (mm)		
			Н	w	D									
tigh Temperature tube furnaces up to 1600°C (1500°C in continous)														
HTF166030 SC	300	20 to 60	530	500	380	3	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal SiC	75
HTF166045 SC	450	20 to 60	530	700	380	5	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	100-150
HTF166060 SC	600	20 to 60	530	850	380	7	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	250
HTF166080 SC	800	20 to 60	530	1100	380	10	380 III	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	300
HTF1612030 SC	300	70 to 120	530	500	380	3	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal SiC	75
HTF1612045 SC	450	70 to 120	530	700	380	5	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	100-150
HTF1612060 SC	600	70 to 120	530	850	380	7	220	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	250
HTF1612080 SC	800	70 to 120	530	1100	380	10	380 III	1600°C	1550°C	1500°C	S	Ramp P.	Kanthal Wire	300

### 2, 3 and 4 Independent zones available (Under request)

Other sizes under request (Custom furnaces available)

External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

Hobersal reserves the right to modify sizes.



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### **SPECIFICATIONS**

# New tube furnace range Same quality, better design 75 years of heating experience

## **Accessories**



Stainless Steel high vacuum end seals (water refrigerated, high density Silicon joint), gas inlet & outlet (KF) and



Ceramic Plugs



Gas Supply systems.
Flow meter system 1 (Automatic)



Gas Supply systems. Flow meter system 2 (Manual)



Leybold vacuum equipment up to x10-2



Leybold vacuum equipment (Pump + Turbo station) up to x10-6



Ceramic, Alumina tubes, Inconel tubes...



Quartz tubes