

Furnaces and Ovens manufacturers from Barcelona, Spain since 1946



30°C - 2000°C · 1L - 2000L

www.fornshobersal.com



Manufactured in Barcelona since 1946 · 70 years

### • CE Manufacturing

- 2 years warranty
- After-sales service
- Calibration certificates
- Maintenance contracts

Located in Caldes de Montbui, Barcelona, in the Catalonia region of Spain, HOBERSAL was founded in 1946, specializing in the manufacture of muffle and tube furnaces up to 2000°C, vacuum, melting, ashing, retort furnaces, ovens up to 500°C, customized furnaces, heating plates, accessories and spare parts.

The company is now the leading furnace manufacturer in Spain and other countries.

HOBERSAL realized early on that the secret of manufacturing furnaces is to use quality materials. Throughout the company's history, a network of distributors has been established on over 40 countries, selected for their laboratory and industries' knowledge and ability to provide technical assistance to their customers.

This catalogue offers a comprehensive range of quality equipment. Always innovating, we will continue to offer the latest technology backed by our service and technical assistance.



# APPLICATIONS

### Laboratory



Automotive



Jewelry



Industry



Heat treatment



Dental



Aerospace



**Advanced Ceramic** 



**Arts & Crafts** 



Research



Metal /Ceramic sintering



Incineration



## **HOBERSAL** FURNACES & OVENS TECHNOLOGY

PRODUCT RANGE

### COMPREHENSIVE · 30°C - 2000°C · 1L - 2000L

- Economy chamber furnace drop down & side swing door 1000°C-1200°C
- Muffle furnaces vertical parallel lift door 1000°C 1200°C 1300°C
- Muffle furnaces pantograph side door 1000°C 1200°C -1300°C
- Silicon Carbide heated furnaces 1400°C 1500°C 1600°C
- High temperature chamber furnaces 1600°C 1700°C -1800°C - 1900°C
- Bottom loading furnaces
- Ashing and burn furnaces
- Horizontal tube furnaces 1200°C 1800°C
- Vertical tube furnaces 1200°C 1800°C
- Split tube furnaces (vertical horizontal)
- Three zone tube furnaces

- Vacuum tube and muffle furnaces
- Rotating tube furnaces
- Portable thermocouple calibration furnaces
- Dewaxing furnaces
- Cupellation furnaces Bogie heath furnaces
- Vacuum muffle furnaces
- Continuous furnaces
- Gradient furnaces
- Universal tube furnaces with stand for horizontal or vertical operation
- Ovens to 300°C 500°C 600°C 800°C
- Accessories in a broad assortment

### LABORATORY

## MUFFLE FURNACES



MF Series From 3L to 30 litres 1000°C-1200°C - 1300°C -1400°C Vertical lift door 4 heated zones



JM Series High Temp. Muffle furnace From 3L to 30 litres Temperature 1600°C SiC Kanthal elements



PR Series From 3L to 30 litres 1000°C-1200°C - 1300°C -1400°C Vertical lift door 4 heated zones



### **XG Series**

High Temp. Muffle furnace From 3L to 30 litres Temperature 1650°C to 1900°C Vertical lift door MoSi2 Superkanthal elements





**GB Series** Economic chamber furnace From 5L-7L-10 litres 1200°C Side door 2 heated zones HD Series Economic chamber furnace From 5L-7L-10 litres 1200°C Side door 2 heated zones

### Accessories

- \_ Gas inlet
- \_ Forced extraction chimney
- \_ Forced smoke ventilation (Cooling system)
- \_ OTP (Over Temperature Controller)
- \_ Ceramic and refractory plates and rack
- \_ Heat resistant gloves 900°C
- \_ Crucible tongs
- \_ Crucibles
- \_ SiC and Ceramic chamber
- \_ and more, ask for our full assortment

### LABORATORY

## TUBE FURNACES





**ST11 - ST100 Universal tube furnaces** Max. Temperature 1200°C Heated length: 200 to 600mm Diameters: 20mm to 120mm ST SP series Split tube furnaces Max. Temperature 1200°C Heated length: 200 to 600mm Diameters: 20mm to 225mm





**TR series Vertical split tube furnaces** Max. Temperature 1300°C Heated length: 50 to 2000mm Diameters: 20mm to 225mm ST-VO series (Vertical) Vertical / horizontal tube furnaces Temperature 1200°C Heated length: 200 to 600mm Diameters: 20mm to 120mm



ST16SC series High temperature furnaces Max. Temperature 1600°C Heated length: 200 to 600mm SiC Kanthal elements Diameters: 20mm to 225mm



**ST16 / 18 / 19series High temperature tube furnaces** Temperature 1650°C to 1900 Heated length: 200 to 600mm MoSi2 Superkanthal elements Diameters: 20mm to 225mm



#### **ST VC series (Vertical) High temperature tube furnaces**

Temperature 1650°C to 1900°C Heated length: 200 to 600mm MoSi2 Superkanthal elements Diameters: 20mm to 225mm

#### Note:

\_ Heated zones can be 1,2 or 3 (independent) each controller control each zone to get better homogeneity \_Customized options under request \_OTP (Over temperature protection)



### ACCESSORIES

## TUBE FURNACES



SS high vacuum end seals ( water refrigerated) high density, gas inlet and outlet, vacuum entry KF( x10-5) and thermocouple slot



Vacuum kit up to x10-2 + vacuum meter



Vacuum kit up to x10-5 (vacuum pump + turbo station + vacuum meter)



Gas supply system 1 Automatic flow meters



Gas supply system 2 Manual flow meters



Quartz tubes





Alumina tubes 1400°C to 1800°C

Ceramic plugs



Horizontal and Split tube furnace Temperatures 1200°C to 1500°C

Horizontal and Vertical Split tube furnace Temperatures 1200°C to

Horizontal and Vertical Split tube furnace Temperatures 1200°C to 1500°C

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Hobersal

New tube furnace range Same quality, new image



Universal tube furnace Temperatures 1200°C to 1500°C

### Economic high temp. Muffle furnaces up to 1600°C



Side door and drop down door Volumes: 1, 3, 6 litres Heating elements: Kanthal SiC Ramp programmer up to 64 steps Lightweight and compact Affordable prices Ceramic fiber insulation

## LABORATORY/INDUSTRY

## VACUUM AND CONTROLLED ATMOSPHERE FURNACES





### PR/V SERIES CONTROLLED ATMOSPHERE/VACUUM SYSTEM OPTIONS

#### EV-7 Automatic Programmable & Controlled Atmosphere/Vacuum System

#### CHARACTERISTICS:

- 1. Electronic-valve equipment to control gas atmosphere or/and vacuum.
- 2. Eurotherm programmable controller equipment (10 programs/25 segments) with alarm.
- 3. Eurotherm programmable controller and data logger software.
- 4. Ethernet cable.
- 5. Portable computer optional (please, consult).

This system enables complete automatic electronic programming and controlling of the furnace chamber's atmosphere, with automatic gas introduction, replacement and/or extraction.

### **GAS REACTION SATETY SYSTEM**

#### CHARACTERISTICS

- 1. Reaction gas safety equipment 100% Hydrogen
- 2. Active gas combustion flame equipment
- 3. Controller equipment with electro valves, pilot, indicators, manual option switches
- 4. Complete set of accessories

## DUSTRIAL FURNA





**CRN Series** High Temp. Muffle furnace From 42L to 512 litres Temperature 1650°C to 1900°C Pantograph side door

HCV Industrial series From 56 to 2.000 litres 1200°C to 1400°C





**HB Series (static)** Tempering and annealing Fast cooling 1150°C

ATF Series (tilting) Tempering and annealing Fast cooling 1150°C



**HCV CCH** Controlled atmosphere From 3L to 1200 litres Temperature 1150°C



HBC Belt furnaces (Soldering) Temperature 1150°C

### **Accessories**

- Gas inlet
- \_ Forced extraction chimney
- \_ Forced smoke ventilation (Cooling system)
- OTP (Over Temperature Controller) Ceramic and refractory plates and rack
- \_ Heat resistant gloves 900°C
- \_ Crucible tongs
- Crucibles
- \_ SiC and Ceramic chamber
- and more, ask for our full assortment

## OTHER APPLICATIONS





HOB series Bottom loading furnace Max. Temperature 1900°C Controlled atmosphere

PR - C Series Cupellation furnaces Max. Temperature 1200°C Volumes: 3L to 512L



**PR + Annealing boxes Cupellation furnaces** Max. Temperature 1200°C Volumes: 3L to 512L Controlled atmosphere



MF-TGA Thermo Gravimetric Analysis Max. Temperature 1200°C Volumes: 3L to 30 L



HS - CF Laboratory Oven Max. Temperature 300°C Volumes: 20L to 720 litres



**EHT Industrial Oven** Max. Temperature 500°C Volumes: 13L to 1000 litres



**Crucible furnaces** Max. Temperature 1900°C



Incinerators Max. Temperature 1300°C Gas fired / Electric



**Pottery** 1150°C - 1260°C Gas fired / Electric

## CUSTOMIZED FURNACES





HCV AC Series Air Forced Circulation furnace Max. Temperature 1000°C According AMS2750E

HCV42/13 3CX Heat treatment Furnace Max. Temperature 1300°C



ST161151003Z Tube furnace High vacuum x 10-5 1600°C - 3 heated zones



Orly Series SS muffle furnaces Max. Temperature 1200°C



HCVSeries Pneumatic lift door Max. Temperature 1400°C Volumes: 54I to 2.000L



Industrial Hot plates 6 heated zones Max. Temperature 600°C



**TR Customized According reactor dimensions** Max. Temperature 1150°C



Pharma Oven HS270CF 2D Double door Max. Temperature 300°C Clean room According 21CFR

## CONTROLLERS





Eurotherm Nanodac Programmer/Recorder 100 progs - 25 segments According AMS2750 and 21CFR Ethernet connection USB **Eurotherm EPC3016** 10 progs - 25 segments Ethernet connection



Eurotherm EPC3004 10 progs - 25 segments Suitable for Vacuum and controlled atmosphere furnaces Ethernet connection

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Eurotherm Itools Software 100% control from by PC Programable controller and data logger Curves downloadable in CSV Excel



**Fuji PXF-4** Ramp programmer Up to 64 segments



**Fuji PXE-4** Digital controller Suitable for OTP

### **TEMPERATURE CONTROL**

Our furnaces and ovens are equipped with a range of high quality PID temperature controllers that provide precise temperature control. Closely follows programmed set point temperatures and ramp rates



**Cooling fan systems** 

**Graphite boxes** 



Heat resistant gloves 900°C

Crucible tongs 450mm



Forced exhaust ventilation and chimneys



All kind of working tubes



Ceramic and steel racks and plates



Aluminised Equipment



**Cooling tables** 



All kind of crucibles



Vacuum and controlled atmosphere SS flanges x10-5



Heating elements Kanthal MoSi2 and Sic



Vacuum kits x10-2 and x10-5



Annealing boxes



All kind of thermocouples



and more, ask for our full assortment!!!



- 2 years warranty
- After-sales service
- Calibration certificates
- Maintenance contracts
- Training



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