Termolab was founded in 1987 and was the first company to produce high temperature furnaces in Portugal. For the past 20 years has been developing and producing furnaces for a wide range of processes and applications.

The company has been in the national and international market and has furnaces installed in all five continents with great success and satisfaction from customers.

From 25ºC to 2500ºC, with metallic, SiC, MOS2, graphite or tungsten heating elements, Termolab has a line of standard products and also builds many special equipments to meet specific customers requirements.

Using high quality materials, experience and know-how, we are able to produce equipments for a numerous type of applications in wide range of temperatures and atmospheres, with quality engineering solutions.

For technical information consult our website www.termolab.pt or contact geral@termolab.pt.
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CHAMBER FURNACES (type MLM)

- Maximum Operating Temperature: 1.100 / 1.200 / 1.350 ºC;
- Fast heat up and cool down rates;
- Dimensions from 3 up to 1000 litres;
- Heating elements with Kanthal metallic alloys (Kanthal A1 and Kanthal APM);
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).

Options:

- Possibility of data acquisition through Eurotherm Software ‘i-Tools’.
- Possibility of multi-zone temperature control.
- Possibility of door opening system through horizontal axis.
- Gas control accessories.

Standard Models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Useful Dimensions WxHxD (mm)</th>
<th>Maximum Operating Temperature (ºC)</th>
<th>Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLM110</td>
<td>150x150x250</td>
<td>1.100ºC</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>200x150x300</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>3.75</td>
</tr>
<tr>
<td>MLM120</td>
<td>150x150x250</td>
<td>1.200ºC</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>200x150x300</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>3.75</td>
</tr>
<tr>
<td>MLM135</td>
<td>200x200x325</td>
<td>1.350ºC</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>200x250x400</td>
<td></td>
<td>6.5</td>
</tr>
</tbody>
</table>

Note – Other models can be quoted under request.
CHAMBER FURNACES (type MLR - SiC)

- Maximum Operating Temperature: 1.400 / 1.500 / 1.550 ºC;
- Fast heat up and cool down rates;
- Dimensions from 3 up to 250 litres;
- Kanthal Silicon carbide heating elements;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).

Options:

- Possibility of data acquisition through Eurotherm Software 'I-Tools'.
- Possibility of multi-zone temperature control.
- Possibility of door opening system through horizontal axis.
- Gas control accessories.

Standard Models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Useful Dimensions WxHxD (mm)</th>
<th>Maximum Operationing Temperature (ºC)</th>
<th>Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLM14</td>
<td>140x160x250</td>
<td>1.450ºC</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>MLM15</td>
<td>140x160x250</td>
<td>1.550ºC</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>MLM16</td>
<td>140x160x250</td>
<td>1.600ºC</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Note – Other models can be quoted under request.
CHAMBER FURNACES (type MLR)

- Maximum Operating Temperature: 1.550 / 1.600 / 1.700 / 1.800 ºC;
- Fast heat up and cool down rates;
- Dimensions from 3 up to 250 litres;
- Kanthal Super heating elements;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Thyristor Units (phase angle fired);

### Standard Models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Useful Dimensions WxHxD (mm)</th>
<th>Maximum Operating Temperature (ºC)</th>
<th>Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLR16</td>
<td>200x200x300</td>
<td>1.600ºC</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>200x260x300</td>
<td></td>
<td>10,5</td>
</tr>
<tr>
<td>MLR17</td>
<td>135x160x160</td>
<td>1.700ºC</td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td>135x160x210</td>
<td></td>
<td>5,5</td>
</tr>
<tr>
<td></td>
<td>200x200x300</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>200x260x300</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>MLR18</td>
<td>200x200x300</td>
<td>1.800ºC</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>200x260x300</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

**Note** – Other models can be quoted under request.
CHAMBER FURNACES (type MLR)
BOTTOM LOADING / TOP HAT FURNACES

This type of furnaces has the advantage of easy loading and tight sealing. The bottom earth, or the chamber itself, has pneumatic or hydraulic actuated movement to facilitate the loading. The heating elements are installed in the four lateral walls, resulting in excellent temperature uniformity.

- Maximum Operating Temperature: 1.100/1.200/1.300/1.500/1.600/1.700/1.800 ºC;
- Fast heat up and cool down rates;
- Heating elements with Kanthal metallic alloys or Molybdenum disilicide Kanthal;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).

Furnace for 1.800ºC with the possibility to work as tubular vertical (under protective atmosphere) or normal bottom loading chamber furnace.
Top Hat Furnaces for 1,700°C
In these furnaces the bottom earth is static and the furnace chamber moves

Hot Zone Detail
TOP LOADING FURNACES

- Maximum Operating Temperature: 1.200 / 1.350 / 1.500 / 1.600 / 1.700 / 1.800 ºC;
- Fast heat up and cool down rates;
- Dimensions from 3 up to 250 litres;
- Kanthal metallic alloys or Kanthal Super heating elements;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).
TUBE FURNACES

- Maximum Operating Temperature: 1.200/1.300/1.500/1.600/1.700/1.800 ºC;
- Fast heat up and cool down rates;
- Heating elements with Kanthal metallic alloys or Molybdenum disilicide Kanthal;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).
- Alumina recrystalized tubes, with cooled flanges sealed by Viton O’rings, to work under vacuum or controlled atmosphere.

Options:

- Possibility of data acquisition through Eurotherm Software ’I-Tools’.
- Possibility of multi-zone temperature control.
- Gas and vacuum control accessories.

Standard Models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Useful Dimensions Ø x HZL or HZH mm</th>
<th>Maximum Operating Temperature (ºC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH/TV</td>
<td>40x200</td>
<td>Up to 1.800 ºC</td>
</tr>
<tr>
<td></td>
<td>40x300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50x200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50x300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>60x200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>60x300</td>
<td></td>
</tr>
</tbody>
</table>

Note – Other models can be quoted under request.
ROTARY TUBE FURNACES

Rotary tube furnaces are used for continuous processing of powders under controlled atmospheres. They can be supplied with an automatic feeding device.

Main characteristics:
• Adjustable tube rotation
• Adjustable tube tilting
• Adjustable feeding rotation

- Maximum Operating Temperature: 1.100/1.200/1.300/1.500/1.600/1.700 ºC;
- Fast heat up and cool down rates;
- Heating elements with Kanthal metallic alloys or Molybdenum disilicide Kanthal
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).
SPLIT FURNACES

Split Furnaces are vertical or horizontal furnaces with the capability of opening the chamber in two halves. They can work as tubular furnaces or to be installed in tensile testing systems.

- Maximum Operating Temperature: 1.100/1.200/1.300/1.500/1.600/1.700ºC
- Fast heat up and cool down rates;
- Heating elements with Kanthal metallic alloys or Molybdenum disilicide Kanthal;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).
RETORT FURNACES

Furnaces with refractory steel chambers to work under vacuum or controlled atmosphere

- Maximum Operating Temperature: 1,000 / 1,150 °C;
- Fast heat up and cool down rates;
- Heating elements with Kanthal metallic alloys;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Unit (phase angle fired);
DEBINDING RETORT FURNACES

Furnaces with refractory steel chambers to work under vacuum or controlled atmosphere

- Maximum Operating Temperature: up to 1,450 °C;
- Heat up rates of 10 °C / minute (possibility of controlled cooling);
- Heating elements with Kanthal metallic alloy or Kanthal Super ERs;
- Insulation with Rigid Ceramic Fibre;
- Temperature Control with Eurotherm Temperature Controllers;
- Power Control through Solid State Relays or Thyristor Units (phase angle fired).

Additional features:

- Flow control with flowmeters or mass flow controllers.
- Primary vacuum (rotary pumps) or High vacuum (diffusion or turbo-molecular pumps).
- Burn-off system in the end of the gas line (for H2).
- Debinding system (condensation of the binders through traps and cold pots).
- Partial pressure control.
- Possibility to control the process via dedicated PC Panel with touch screen.
Debinding Furnace for 1.000 °C. Works with H₂, N₂, Ar, and Air. PC Panel for process control.

**Equipment**

The system is constituted by:

- A Retort Furnace;
- A Binder Removal Unit (Dewax unit with two traps and a cold pot);
- A Vacuum Equipment;
- A Partial Pressure Control Device;
- A Burn Off Unit;
- A Process Control Unit;
- Gas Control Accessories;

**Main Applications**

MIM Vacuum Dewaxing-Sintering

Powder Injected Molding

Sintering, annealing and tempering of ceramic/metal materials;
GRAPHITE FURNACES

This furnace can be used for a great variety of processes, both for production and research.

Main Applications:

- Sintering of AIN (aluminium nitride) tooling plates;
- Surface cleaning if SiC (silicon carbide) tooling plates;
- Annealing of sapphire parts.
- Sinter MIM parts of stainless steel and others metals;
- Heat treatment / annealing of metals;
- Carbonisation;
- Materials research, i.e. Boron carbide, carbon/carbon, SiC, etc.

The applications are almost infinitive as long as the work is compatible with a graphite hot zone.

Working Conditions:

Can be easily used for a variety of high temperature processes

- Maximum temperature: 2.500 ºC
- Graphite hot zone
- Vacuum or controlled atmosphere
- Accurate user-friendly controls

Flexible design can be customize for numerous applications.

Standard Models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Hot Zone Diameter (mm)</th>
<th>Hot Zone Height (mm)</th>
<th>Maximum Operating Temperature (ºC)</th>
<th>Power (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>100</td>
<td>150</td>
<td>2.000 / 2.500</td>
<td>25</td>
</tr>
<tr>
<td>G2</td>
<td>150</td>
<td>200</td>
<td>2.000 / 2.500</td>
<td>40</td>
</tr>
<tr>
<td>G3</td>
<td>200</td>
<td>250</td>
<td>2.000 / 2.500</td>
<td>50</td>
</tr>
<tr>
<td>G4</td>
<td>200</td>
<td>300</td>
<td>2.000 / 2.500</td>
<td>50</td>
</tr>
</tbody>
</table>

Note – Other models can be quoted under request.
GRAPHITE FURNACES

Model G2
Graphite furnace for 2,300°C
Hot zone diameter: 150 mm
Hot zone height: 200 mm

Model G3
Graphite furnace for 2,300°C
Hot zone diameter: 200 mm
Hot zone height: 250 mm

GRAPHITE FURNACES WITH DEBINDING SYSTEM

Model G4 with Debinding System
Graphite furnace for 2,200°C
Hot zone diameter: 200 mm
Hot zone height: 300 mm
Debinding system (condensation of the binders through trap and cold pot).
HOT PRESS

This systems are designed for high temperature, high pressure consolidation of powder material in high vacuum, inert or reducing atmosphere.

With graphite, Kanthal wires, SiC or MoSi2 heating elements, this furnaces can reach temperatures up to 2.500ºC.

Standard pressures up to 50 tons.

The system includes the following components:

- Furnace
- Press Frame
- Heat Zone
- Power Supply
- Hydraulic System
- Vacuum or inert gas systems (optional)

Main Applications

- Ceramic Processing
- Metal Processing
- Powder Densification
- Powder Metal Forming
- Sintering
- HmoR Tests
The equipment includes the following components:

- Furnace
- Lifting System (manual or electrically operated)
- Control Unit
- Gas Control Accessories
- Vacuum system

High Vacuum Furnace for 1,600°C
Ø=40mm; HZH=70mm
Equipment sold to:
Universitat Autònoma de Barcelona - Spain

High Vacuum Furnace for 2,000°C
Ø=100mm; HZH=100mm
Equipment sold to:
Institut de Chimie de la Matière Condensée de Bordeaux ICMCB - CNRS (France)
SOLAR FURNACE WITH A FRESNEL LENS

- **Focal Distante:** 1mt
- **Maximum Temperature:** till 2,000ºC
OTHER PRODUCTS AND SERVICES

For the past 20 years of activity, Termolab has been requested by customers, to supply some components that usually are used in the construction of our equipments.

As we have a straight relationship with our suppliers, we are in the position to offer, with very competitive prices, a large range of products and services of some of the most important companies of the world.

We have created a small sector in Termolab where we intent to supply parts to better serve our customers, giving technique and engineering support to find the better solution according customers desires.

We can offer solutions and supply products from these suppliers:

**Eurotherm** ([www.eurotherm.co.uk](http://www.eurotherm.co.uk))
- Temperature Controllers,
- Power Controllers,

**Kanthal** ([www.kanthal.com](http://www.kanthal.com))
- Heating elements (Kanthal alloys, Silicon Carbide, Kanthal Super)

**Rath** ([www.rath-group.com](http://www.rath-group.com)) and Zircar ([www.zircaceramics.com](http://www.zircaceramics.com))
- Ceramic fibers for high temperatures (up to 1800 ºC)

**Other products:**
- Mass Flow Controllers,
- Vacuum pumps and gauges,
- Sensors (thermocouples, optical pyrometers, pressure transducers, etc)
- Ceramic and Quartz tubes,
- Technical graphite pieces.
CONTACTS

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Fax: +351 234666039
URL: www.termolab.pt

E-mail: geral@termolab.pt
        comercial@termolab.pt
        financeiro@termolab.pt

GPS Coordinate:
Latitude: 40° 58' 53" N
Longitude: 8° 40' 34" W
International References

- ESCOLA TÈCNICA SUPERIR D’ENGINYERS INDUSTRIALES – ETSEIB (Barcelona - Spain)
- UNIVERSIDAD DE CASTILLA - LA MANCHA (Cuidad Real - Spain)
- UNIVERSIDAD DE ZARAGOZA (Spain)
- UNIVERSIDAD DE SEVILLA (Spain)
- UNIVERSIDAD DE EXTREMADURA (Badajoz – Spain)
- FUNDACION ITMA (Asturias - Spain)
- FUNDACION CIDAUT (Valladolid - Spain)
- SEMPSA (Madrid – Spain)
- F.A.E. (Barcelona – Spain)
- INSTITUTO DE TECNOLOGÍA CERÂMICA - ITC (Castellón—Spain)
- CINN - Centro de Investigación en Nanomateriales y Nanotecnología (OVIEDO - Spain)
- FERROATLANTICA, S.L. (Spain)
- CENIM – Centro Nacional de Investigaciones Metalúrgicas (Spain)
- INCAR (Spain)
- AIMEN (Spain)
- INSTITUTO EDUARDO TORROJA (Spain)
- ACERINOX (Spain)
- AEROSPACE ENGINEERING EUROPE, SA (Spain)
- REFRACTÁRIOS ALFRAN (Spain)
- KERATEC, Advanced Materials (Oviedo—Spain)
- INSTITUT DE CHIMIE DE LA MATIERE CONDENSEE DE BORDEAUX - ICMCB (France)
- CENTRE DE RECHERCHE SUR LES IONS, LES MATERIAUX ET LA PHOTONIQUE – CIMAP (France)
- SPSM - ECOLE CENTRALE DE PARIS (France)
- INSTITUT DE SCIENCE DES MATERIAUX DE MULHOUSE (IS2M) - Equipe Matériaux à Porosité Contrôlée (MPC)
- LABORATOIRE PROCEDES, MATERIAUX ET ENERGIE SOLAIRE - PROMES (France)
- CENTRE EUROPÉEN DE LA CÉRAMIQUE – SPCTS (Limoges – France)
- INSTITUTE DE PHYSIQUE NUCLÉAIRE ORSAY (France)
- FRAUNHOFER INSTITUTE - IFAM (Bremen - Germany)
- FRAUNHOFER INSTITUTE - ISC (Wurzburg - Germany)
- FRAUNHOFER INSTITUTE - IKTS (Dresden - Germany)
- MAX PLANCK INSTITUTE (Stuttgart - Germany)
- MAX PLANCK INSTITUTE (Garching - Germany)
- DIFK - Deutsches Institut für Feuerfest und Keramik GmbH (Bonn - Germany)
- INM SAARBRUCKEN (Saarbrucken - Germany)
- SAARLAND UNIVERSITY (Saarbrucken - Germany)
- RWTH AACHEN UNIVERSITY (Aachen - Germany)
- UNIVERSITY OF KOELN (Köln - Germany)
- UNIVERSITY OF HAMBURG (Hamburg – Germany)
- UNIVERSITY OF STUTTGART (Stuttgart – Germany)
- UNIVERSITY OF ENLANGEN (Nürnberg – Germany)
- UNIVERSITY OF BONN (Bonn - Germany)
- UNIVERSITY OF PADERBORN (Paderborn - Germany)
- TU BRAUNSCHWEIG (Braunschweig - Germany)
- TU DARMSTADT (Darmstadt – Germany)
- TU BERGAKADEMIE (Freiberg - Germany)
FH AACHEN (Aachen - Germany)
FH MÜNSTER (Münster – Germany)
FH JULICH (Jülich - Germany)
FH SCHMALKALDEN (Schmalkalden - Germany)
MONTANUNIVERSITÄT LEOBEN (Loeben - Germany)
BIOTRONIK (Berlim – Germany)
SIEMENS AG (Erlangen - Germany)
LINSEIS (Germany)
BASF (Germany)
DLR - Koln (Germany)
WESGO CERAMICS (Germany)
DEGUSSA (Germany)
RAUSHERT (Germany)
CERAMTEC AG (Germany)
LUFTHANS (Germany)
BMW (Germany)
OSRAM GmbH (Germany)
BAM (Berlim – Germany)
TREIBACHER, GmbH (Germany)
FACHBEREICH WERKSTOFFTECHNIK - FHJena (Germany)
E.I.TEC GmbH Bayreuth (Germany)
NEUE MATERIALIEN FÜRTH GmbH (Germany)
TU EINDHOVEN (Nederland)
ALCOA (Nederland)
UNIVERSITY SLOVENIA (Slovenia)
INSTITUT JOZEF STEFAN (Slovenia)
CESARE GALDABINI SPA - (Italy)
ENE – (Italy)
ARC-AUSTRIAN RESEARCH CENTER (Austria)
TU WIEN (Austria)
TREIBACHER INDUSTRIE AG (Austria)
TUPACK (Austria)
SULZER INNOTEC (Swizerland)
PHILIPS (Belgium)
VICTORY LIGHTING (England)
OUTOKUMPU, RESEARCH CENTER (Finland)
ATATURK UNIVERSITY (Turquie)
OSMANGAZI UNIVERSITESI REKTORLUGU (Eskisehir / Turquie)
ATOMIC RESEARCH CENTER - (Cairo – Egypt)
DEPARTMENT OF ATOMIC ENERGY - DAE (India)
NAVAL MATERIALS RESEARCH LABORATORY (India)
COMSATS INSTITUTE (Pakistan)
CENTRO DE DESENVOLVIMENTO DA TECNOLOGIA NUCLEAR - ( M.G. - Brasil )
UNIVERSIDADE FEDERAL DE S. CARLOS - ( S. Paulo - Brasil )
UNIVERSIDADE FEDERAL DE MINAS GERAIS (Brasil)
BRAZILIAN AERONAUTICAL COMISSION (Brasil)
St. GOBAIN - ( Brasil )
CELLARIS, Ltd (Israel)
NUCLEAR RESEARCH CENTER - Negev (Israel)
THERMAL TECHNOLOGY Inc. (USA)
Portuguese References

- INSTITUTO NACIONAL DE ENGENHARIA E TECNOLOGIA INDUSTRIAL - INETI
- UNIVERSIDADE DE AVEIRO
- FACULDADE DE CIÊNCIAS DA UNIVERSIDADE DE LISBOA
- FACULDADE DE CIÊNCIAS DA UNIVERSIDADE DO PORTO
- INSTITUTO SUPERIOR TÉCNICO
- UNIVERSIDADE NOVA DE LISBOA (FCT)
- UNIVERSIDADE DE COIMBRA
- UNIVERSIDADE DO MINHO
- FACULDADE DE ENGENHARIA UNIVERSIDADE DO PORTO
- INSTITUTO DO EMPREGO E FORMAÇÃO PROFISSIONAL
- INSTITUTO SUPERIOR DE ENGENHARIA DE LISBOA
- INSTITUTO SUPERIOR DE ENGENHARIA DE COIMBRA
- INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO
- CENTRO TECNOLOGICO DA CERÂMICA E DO VIDRO
- INSTITUTO POLITÉCNICO DE VIANA DO CASTELO
- INEGI - INSTITUTO DE ENGENHARIA MECÂNICA E GESTÃO INDUSTRIAL
- UNIVERSIDADE DA BEIRA INTERIOR
- UNIVERSIDADE DE EVORA
- INSTITUTO DE CIÊNCIA APLICADA E TECNOLOGIA-UNIV. DE LISBOA
- INSTITUTO DE SOLDADURA E QUALIDADE
- INSTITUTO PEDRO NUNES
- LABORATÓRIO NACIONAL DE ENERGIA E GEOLOGIA (LNEG)
- CENTRO DE VALORIZAÇÃO DE RESÍDUOS
- FABRICA DE PORCELANA DA VISTA ALEGRE (Ílhavo)
- F. RAMADA, SA. (Ovar)
- CONTIBRONZES, SA. (Sabugo)
- EFACEC, SA. (Porto)
- ARPOSI, SA. (Vale de Cambra)
- RENAULT PORTUGUESA (Cacia)
- VULCANO, SA. (Aveiro)
- DURIT, LDA. (Albergaria-a-Velha)
- SECIL, SA. (Setúbal)
- COVINA, SA. (Sacavém)
- CMP - CIMENTOS MACEIRA E PATAIAS, SA. (Leiria)
- CABLAUTO (Vila Nova de Famalicão)
- CABELTE S.A. (Arcozelo)
- MAHLE (Murte de)
- INNOVNANO (Aljustrel/Coimbra)
- KEMET (Évora)