

## **INNOVATIVE CERAMIC PROCESS ENGINEERING**







- Tunnel kilns
  - Intermittent kilns
    - Dryers
      - Control equipment
        - Transport systems
          - Modernization projects



## **INNOVATIVE CERAMIC PROCESS ENGINEERING**

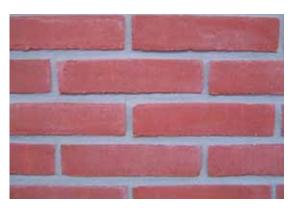
Since almost 30 years Instalat has proven to be a reliable, well respected supplier of excellent process equipments for various applications in and beyond the ceramic industry.

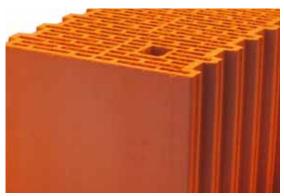
Instalat offers a complete package of design, supply, erection and commissioning of its product range, including training of customer's employees. In applying the newest process technologies for profitability, energy saving, environmental protection, electronic measurement and control systems, Instalat is capable to fulfill the highest demands. Instalat supplies new plants as well as modernization and optimization concepts for existing dryers and kilns.

Short erection times to reach the agreed deadlines are guaranteed by our experienced personnel.









#### TUNNEL









#### **KILNS**







Instalat supplies tunnel kilns and kiln equipment for the production of all kinds of ceramic products.

For the construction of the kilns we use standard refractory bricks, prefabricated modular sections made of refractory castables or ceramic fibers.

The plant design is carried out on clients request. Our design staff is dealing directly with the client to ensure the most suitable solution.

Kiln equipment, such as firing groups, rapid cooling, final cooling, take offs, is designed and constructed to state of the art technology.

The supplied kiln and kiln cars have all requirements to achieve low energy consumption.





#### **INTERMITTENT**



# **KILNS**

Instalat is a specialized kiln supplier with a history of reliability and excellence.

Our intermittent kilns are fully guaranteed and our success is based on satisfied customers, almost half of our deliveries come from repetitive orders.

These kilns are supplied for a wide range of products, for example:

- Chimney pipes
- Blue damping of roofing tiles, bricks and façade elements
- Roofing tile accessories
- Sewer pipes (vitrified clay pipes)
- Refractory products
- Split tiles
- Porcelain and stoneware

Energy saving is achieved by the use of:

- pulse firing
- ceramic fiber or light weight refractory brick lining
- pressure and atmosphere control
- computerized control.

On customers request our kilns can be designed as:

- Shuttle kiln with kiln cars
- Chamber kiln
- Top hat- or Bell kiln
- Moving hood kiln
- Etc.

The inner kiln dimensions can vary from 1m3 to more than 400 m3.

Firing temperatures up to 1600 °C.









## **CHAMBER & TUNNEL**



fill up space between dryercar

# **DRYERS**

Instalat supplies all kinds of drying equipment.

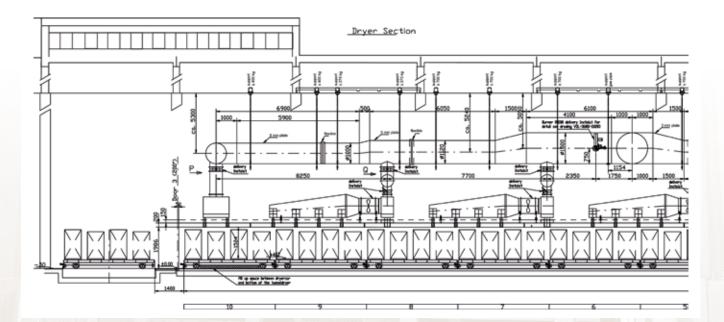
Every dryer is a tailor made product and is built to the latest state of the art. Chamber dryers are designed for production units with a wide range of products and a non-continuous production process.

Tunnel dryers are mostly applied in units with a limited range of products and a continuous production process. For stiff-extruded products Instalat supplies tunnel dryers for direct setting

technology. Depending on the type of product, the most suitable technique will be chosen.







#### CONTROL

Instalat supplies computerized automation systems for kilns, dryers and transport systems.

All systems are designed to suit the customers' needs using the most sophisticated tools available now for industrial automation.

#### Visualization software

Tools like General Electric iFIX , Siemens WinCC and if requested standard Microsoft tools like Excel, Access or SQL-databases are implemented.

Special features and special extensions are custom made by our software department using programming languages like VB or .NET.

Using communication networks like Profibus, Ethernet and MPI we can combine existing or new PLC's with the our visualization system.

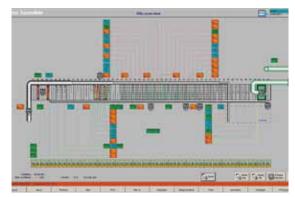
The custom made PLC programs and control systems are written and tested by our software department.

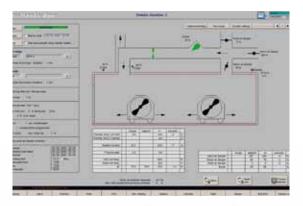
Aside from process visualization systems for kilns and dryers we also supply systems for:

- Energy management
- Kiln car handling
- Kiln car tracking
- Dryer car handling
- Dryer car tracking
- Data logging

Even if your automation solution is not on the list we will search with you for any solution for your specific problem.

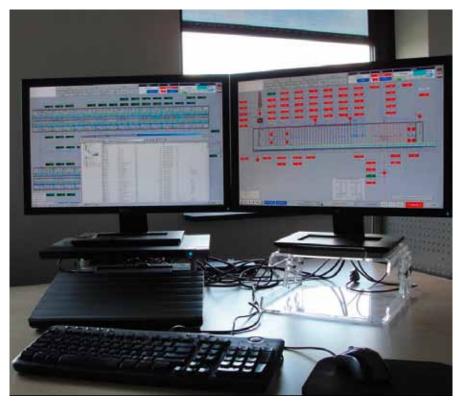


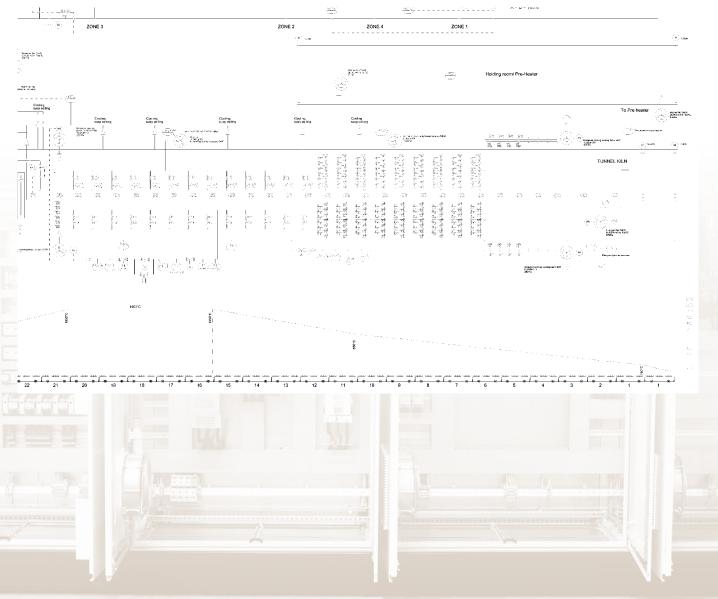






#### **EQUIPMENT**





# **TRANSPORT SYSTEMS**

Instalat offers handling and conveying systems for the ceramic industry like:

- Transfer cars
- hydraulic pushing machines
- kiln and dryer car transport systems
- chain conveying
- etc.

For all kind of transport systems Instalat works also in association with other companies like Bernd Münstermann GmbH & Co KG, Germany and United Symbol, Italy, who are experts in their own fields.

Instalat supplies the complete electrical control for all transport systems including the visualization.









## **KILN AND DRYER UPGRADE**

Instalat is the specialist in upgrading, revamping and optimization of existing kilns and dryers.

For over 25 years now, significant benefits for our clients were achieved through upgrade and optimization projects.

After a thorough evaluation of all operating conditions the strategies to achieve the following possible goals will be determined:

- improve of quality
- increase of production
- reduction of energy consumption
- reduction of cracks (cooling and preheating)
- improvement of temperature uniformity

Optimizations can be reached by changes of:

- preheat zone (exhaust recirculation or high velocity burners)
- firing zone (modification and/or extension of the burner equipment)
- hot- and warm-air recovery (extension and/or modification)
- adaptations or renewal of the control system

and many more optimizations.

Instalat offers its customers the whole range of equipment and know how. Ask us!









## **TECTON GERMANY**

Tecton Keramikanlagen GmbH is a company which brought together leading specialists in the ceramic industry to design, promote and install complete turnkey projects.

Tecton is supported by:

- United Symbol, specialist in manufacturing of machinery for forming and handling,
- Instalat, supplier of kilns, dryers and related products and
- FH & FH engineering company.

From the inception of the original idea, Tecton GmbH will arrange, construct and commission plants for the ceramic industry, with the assurance that customers are dealing with the main contractor and not with numerous sub-contractors.

All projects are being studied and researched carefully to determine the most appropriate solution for our clients.

The equipment design and -manufacturing maximizes the clients energy conservations and profitability. Installation is closely monitored by own engineers during all the stages of construction. Fully qualified personnel will train the client's staff on how to run their plant in the most efficient way.

This attention to detail, systematic planning and close project control makes Tecton GmbH the respected authority on turnkey plant installation.









# **History**

Instalat is a family owned company that offers the best quality equipments at competitive prices

- 1983 Foundation of the company.Main products: Firing equipments and machine parts for industrial applications.
- 1988 Extension of the program: Supply of intermittent kilns.
- 1991 Participation in Walter-Craven (Germany).Complete supply of turn-key plants for the ceramic industry.
- 1993 Foundation of Instalat Electro B.V. for supply of process control systems.
- 1997 Reconstruction of heat treatment kilns for the metallurgical industry in cooperation with Arab British Dynamics in Egypt. Full takeover of Walter Craven by Instalat.
- 1998 Centralization of all activities at Instalat in the Netherlands.
- 2005 New offices and workshops in Wijchen. Partnership with in Tecton GmbH (Germany), complete supply of turnkey plants for the ceramic industry.
- 2010 Participation in CeramDry GmbH (Germany), supply of dryers for the ceramic industry.









#### How to find us:



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