

**TECHNICAL FACTSHEET** | n. 4

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## ECONOMICK SOFTWARE

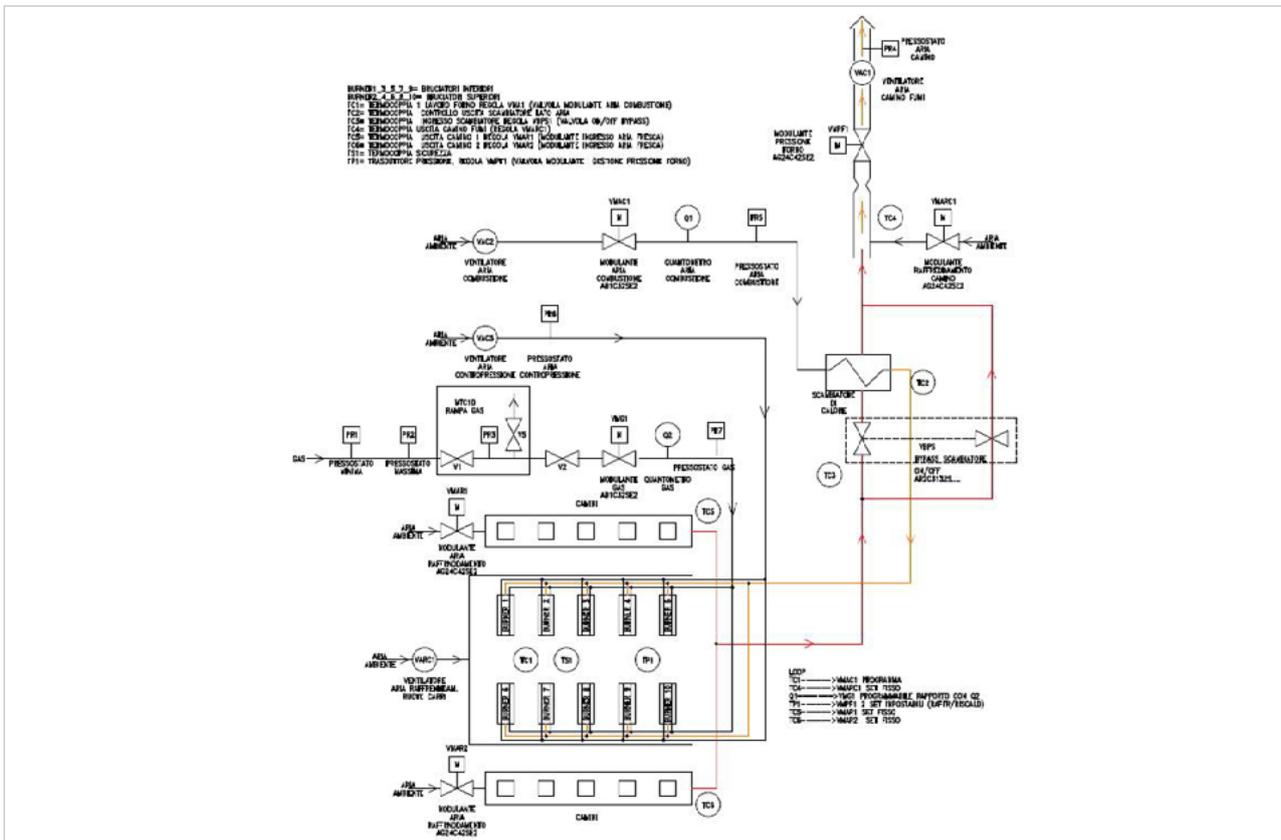
# ECONOMICK SOFTWARE

## SHORT DESCRIPTION |

Economick software enables to have a separated air/ gas flow rate control. Thanks to an O<sub>2</sub> probe, it is also possible to continuously check kiln atmosphere and so to limit air combustion excess to reduce energy consumption and NO<sub>x</sub> production.

## ECONOMICK KILN FLOW CHART |

Economick kiln flow chart with indication of gas, air and flue gas fluxes. Different colors indicate temperatures: in red, flue gases at high temperature; in yellow pre-heated air



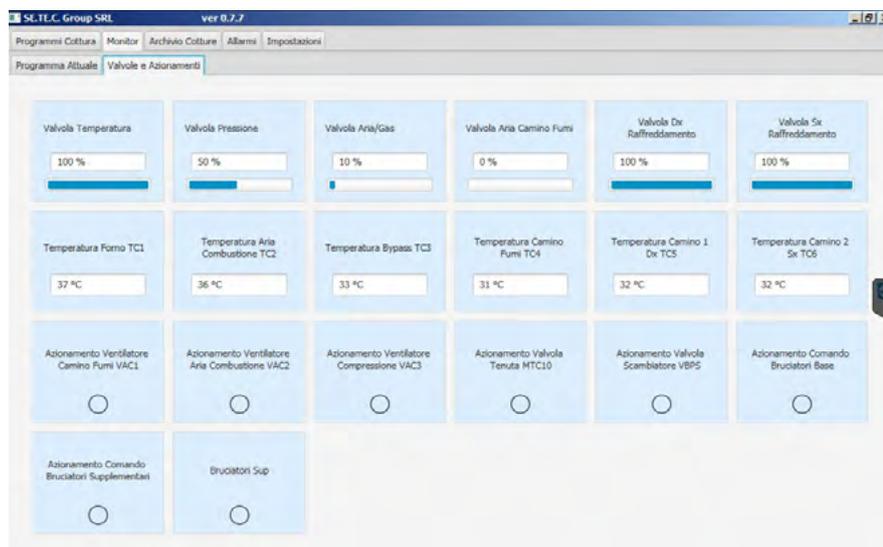
## ADDED VALUE |

Economick kiln software reduces energy consumption and NO<sub>x</sub> emissions with 10-15%. Thanks to this innovative system it is possible to optimize air/gas ratio and heat recovery. Dilution air is used only when needed.

This new technology can also be easily introduced in already working shuttle kilns.

## INNOVATIVE FEATURES |

-  O<sub>2</sub> probe to monitor kiln atmosphere and reduce NO<sub>x</sub> emissions.
-  Separated air/gas flow rate control to have an almost stoichiometric combustion.
-  Possibility to use this new technology in already working shuttle kilns.



## PARTNERS |

SETEC GROUP

LIFE CYCLE ENGINEERING

KERASAN

| [www.setecsrl.it](http://www.setecsrl.it)

| [www.lcengineering.eu](http://www.lcengineering.eu)

| [www.kerasan.it](http://www.kerasan.it)

## PROJECT DESCRIPTION |

ECONOMICK project will develop an innovative shuttle kiln for ceramic production, which consumes about 45% less energy than actually existing ones and, consequently, allows the industry to reduce costs, CO<sub>2</sub>, NO<sub>x</sub>, HF, SO<sub>x</sub> and dust emissions, and raw materials.

Intermittent (or shuttle) kilns are used in about 50% of the ceramic sectors, excluding only tiles industry. Producers of sanitary and table ware, refractory or artistic ceramics use a shuttle kiln for refining ceramic artefacts with some defects, while smaller factories use such a kiln also for first firing, alternatively to a tunnel kiln that requires high production levels.

Thanks to a computerized management of air and gas flow, the almost complete reuse of warm air from cooling and advanced materials for thermal insulation, the ECONOMICK kiln will ensure a specific consumption of 1300-1400 kcal/kg of firing product, comparable to the performance of a good tunnel kiln.

By substituting their tunnel kilns with ECONOMICK kiln, European industries- in particular SMEs – will drastically reduce their costs. This will strongly boost their capacity to maintain or improve their market share, especially in the high-end market.

[www.economick.eu](http://www.economick.eu)

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