



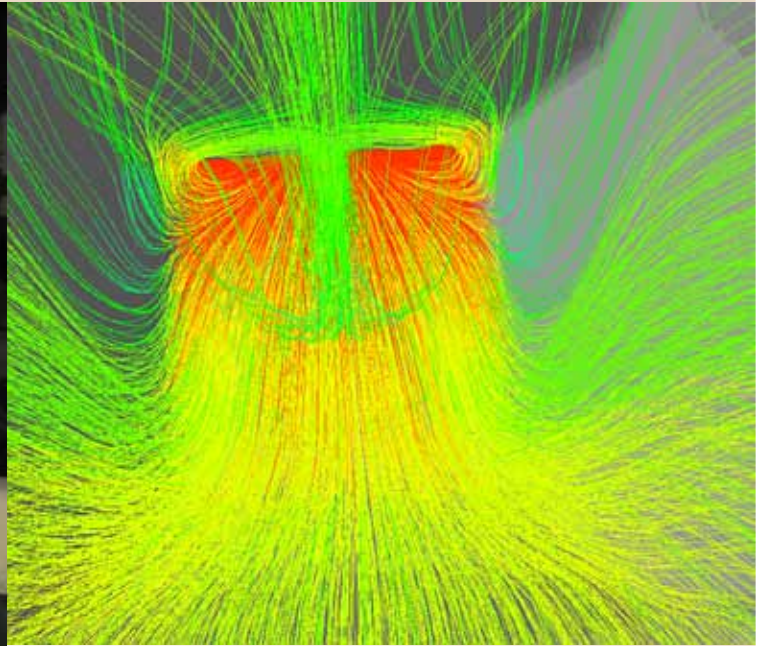
# FLEXICAL™

FLEXICAL™ burners are customized to be used in preheaters and precalciners of clinker kilns. They translate the application of more than forty years of experience that Greco has in the field of combustion to meet local and specific conditions of the cement manufacturing process. FLEXICAL™ burners are efficient and can be used with any kind of fuel; their qualities assure excellent results in firing petcoke, solid and liquid wastes.

## *FLEXICAL™ burners main features:*

- *Reduction of CO emissions*
- *Process stability because fuel is fired in the most appropriate region in the precalciner;*
- *Coating forming control*
- *Fuel is injected and fired on the most favorable position*
- *Refractory life-cycle is increased*
- *Simple installation*
- *Easy maintenance*





FLEXICAL™ burners are developed on a case-to-case basis to guarantee a full mixture of gas and fuel flows as well as the appropriate residence time.

For this kind of development, Greco's proprietary softwares are deployed – a result of decades of experience and continuous improvement in the combustion field – plus the support of CFD – Computational Fluid Dynamics. This is the reason why FLEXICAL™ burners are always the best solution for a mix of fuels that is going to be used, and for the type of precalciner or preheater where they will be placed.

They are multi-fuel burners that are fit for firing solid, liquid, and gaseous classical and alternate fuels – petcoke, natural gas, fuel oil, solvents, dry sludge from treatment stations, shredded plastic and tires, biomass, etc. They are, in addition, burners of a robust construction that bring together high efficiency and low maintenance costs.

FLEXICAL™ burners can be installed on the most diversified types of calciners - SLC, ILC, RSP, DDF, among others – and placed where fuel burning is more efficient. FLEXICAL™ burners technology is fit to be used as “DeNO<sub>x</sub> burners” in staged combustion. The appropriate position of such burners help decrease NO<sub>x</sub> emissions via the creation in the calciner or in the pre-heating tower of a region that is oxygen poor – a “reducing zone” that causes a partial reversion of the thermal NO<sub>x</sub> that is produced in the kiln.

The quality and versatility of FLEXICAL™ burners have as best testimonial their acceptance by cement plants all over the world.

Almost a hundred of these burners operate successfully in Brazil, in the US, in Spain, in Italy, in Ecuador, and in Uganda, among other countries.



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