

Repair works on an 80m high concrete chimney in a French refinery.



During a plant shutdown, FERBECK INDUSTRIAL CHIMNEYS has been in charge of the full refurbishment of a concrete stack including: brick liner replacement, installation of new accessories such as ladders and platforms in order to comply with new European standards, external painting, new lightning protection system and new aircraft warning system.

All these works have been successfully performed in the frame of the strict requirements of the refinery thanks to an efficient preparation and the employment of highly qualified workers.



The inner works included the replacement of a large part of the brick liner. The old bricks have been replaced by anti-acid radial bricks with tongues and grooves on four sides. The external face of the brick liner has been insulated by foamglass bricks, which have high performances with respect to thermal insulation and anti acid resistance. This insulation help to keep the smoke temperature as high as possible to avoid condensation and also reduces the thermal gradient in the concrete shell (reduction of concrete stresses and cracks width).

The works have been carried out with an internal mobile and adjustable diameter platform. This motorized platform is equipped with all necessary systems and hangs on independent beams placed at the top of the stack.





Carrying out of the works in optimum security conditions: use of temporary platform with lifeline and external man baskets, discharge of the demolition wastes by external chutes...

Complete refection of the painting, including cleaning of the surfaces with a high-pressure pump, and use of a multi layer painting system in order to guarantee the good holdout on the top part of the stack, which is the most submitted to the chemical aggressions in order to guarantee the stack top protection especially at the top where the acid attack is the more important.



Installation of a new aircraft warning lights system in compliance with the latest regulation.

Complete renewing of the lightning protection system, in accordance with the new standards.



The ladders and the platforms have been replaced by new ones, in order to comply with the norms.