

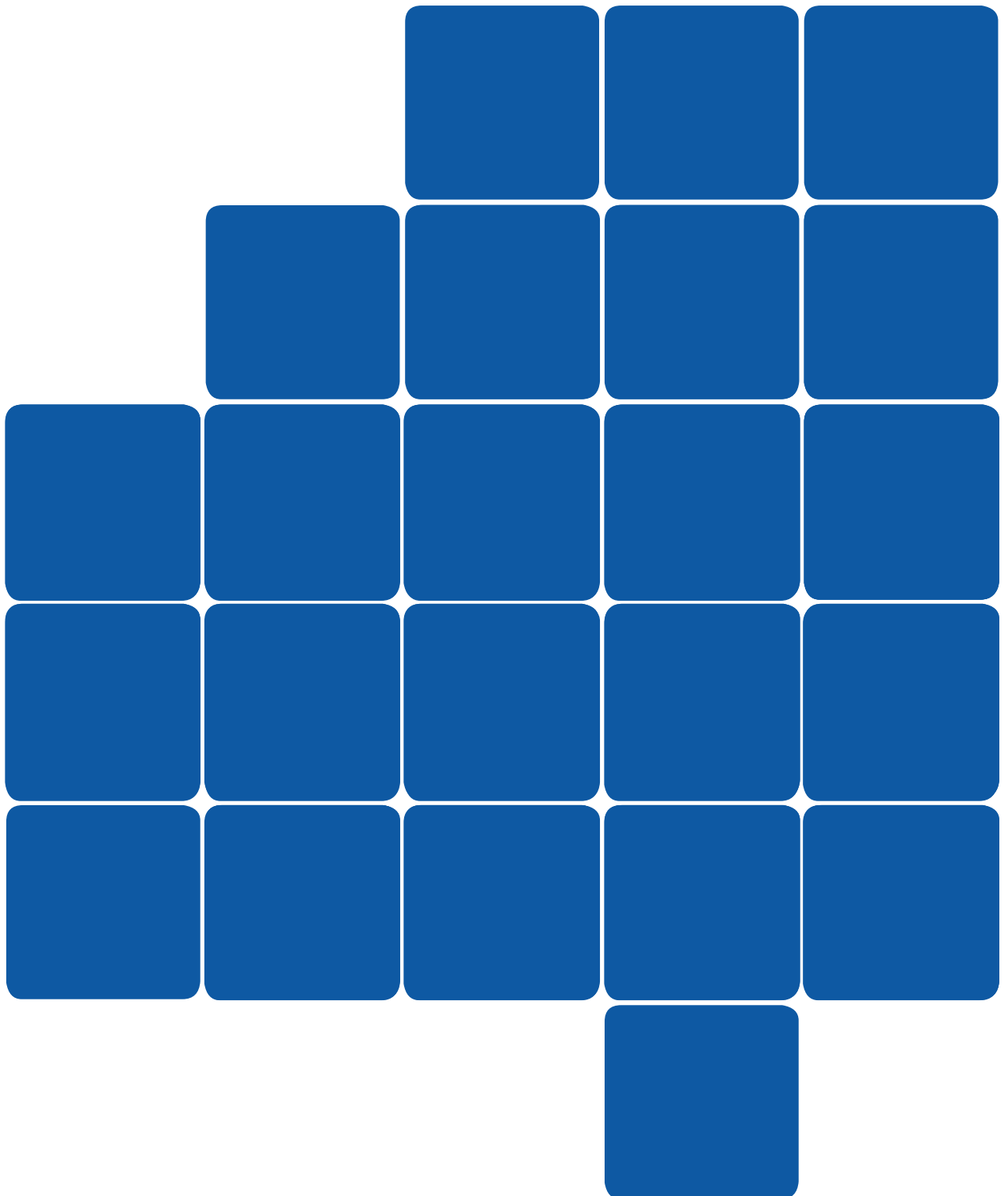


## TACOR® SYSTEM

Automatic tank cleaning

For storage and recovery

For hydrocarbons



# TACOR® System

The TACOR® System is the most technologically advanced process in the automatic tank cleaning service, achieving the efficient recovery of hydrocarbons, reducing the execution lead times and the cleaning costs in compliance with safety requirements.

Developed by TANKIAC in collaboration with the equipment manufacturer ECOMAT and with the experience and know-how of the automatic tank cleaning activity using different systems and processes. TACOR® is the most modern mobile tank cleaning system. An automated, constantly evolving process and in compliance with maximum environmental safety during its installation and operation.

The process is started with the deployment and implementation of the equipment in accordance with the client's requirements and the characteristics of each tank. The TACOR® System allows working with maximum safety in potentially dangerous environments and atmospheres with highly experienced, trained and qualified staff.

To guarantee a safe process, the tank is inerted with nitrogen for the purpose of reducing the oxygen level to less than 8% to eliminate any risk, therefore working in a safe atmosphere.

The filtering module is connected to the tank to be cleaned using bottom drains and other available suctions, passing the product through the different mechanical filters installed in the unit.

The product is passed from the filtering module to the suction module which primarily consists of different types of suction pumps and a coil heat exchanger. This cleaning process consists of fluidising and diluting the sludge using light crude oil.

This module monitors the entire process continuously using a PLC with multiple safety mechanisms to perform the process safely.

The nozzles are installed in the tank roof, high-impact jets at low pressure between 12 and 15 bar with a considerable flow rate to fluidise the sludge. These nozzles are pneumatically operated. There are three possibilities for their installation on the roofs: making holes using a cold cutting machine (ATEX certified zone 0), using the openings in the roof (inlets, atmospheric valves, etc.) or via the liners, removing some feet from the tank.

This technology is also prepared for being used in fixed roof tanks, installing nozzles around the enclosure and around the roof.

Finally, the filtered crude is passed to the recirculation module. In this module the pressure is increased to between 12 and 15 bars, pushing the product to the nozzles positioned in the tank roof.

In the event of a more efficient separation of the recovered product being necessary, it goes on to the skimming tank, sending the lower part to the 3-phase separation module, separating the water and oil from the inorganic product sediments. This phase is optional, primarily being applied to slop tanks or those with a high content of inorganic matter.

This is followed by washing with gas oil, LCO, etc. (if available). For the maximum cleaning of the internal structures of the tank and bottom, thereby achieving more efficient degreasing. The final process is washing with hot water passing it through the skimming tank to separate the free oil which floats on the water.

Optionally, and for specific cases, washing could be performed with a biodegradable degreasing agent exclusive to TANKIAC, thereby achieving a gas free, non-toxic atmosphere which facilitates the entry of personnel inside the tank after the process.

The tank will be opened, ventilated and the residues will be extracted manually or using mechanical means.

The main advantages offered by the TACOR® system are:

The combination of the cleaning and recovery of the hydrocarbons contained by the sludge.

Reduction in costs and execution lead times. (Text written beside the image: Reduction)  
Maximum safety during the process development, minimising the exposure of staff to toxic and explosive atmospheres. (Text written beside the image: Maximum safety)  
It reduces waste and minimises the consumption of resources and environmental pollution.

Additionally, the TACOR® System is the only one in the world which, thanks to Tankiac, comes with the guarantee of more than 20 years of experience with hundreds of automatic tank cleaning operations already performed with highly specialised staff with vast experience. (Text written beside the image: 20 years of experience)

TANKIAC currently operates in countries such as Germany, France, Italy, the United Kingdom, Spain, Portugal, Holland, Switzerland, Denmark, Greece, Hungary, etc. It's most important company references are: REPSOL, STATOIL, CEPESA, TOTAL, SARAS, EXXON MOBIL, BP, TAMOIL, VARO ENERGY, amongst others. (Show the logos for the brands with a sequential infographic zoom).



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AUTOMATIC TANK CLEANING  
TACOR® SYSTEM

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ECOMAT. (Use ECOMAT anagram)

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