

How to clean a wastewater treatment modular process skid

A manufacturer of wastewater treatment modular process skids revolutionizes cleaning processes with a system designed by PNR Italia



SCENARIO FOR THE SECTOR

MODULAR PROCESS SKIDS FOR FILTRATION, COGENERATION AND WATER PURIFICATION

A process skid is a modular and autonomous system built to assist the operation of more complex industrial systems.

Before their assembly in the final use site, the process skids are installed and tested, determining a critical advantage and allowing a quick and safe integration of the skid with the primary system.

An essential element of process skids is the platform on which they are mounted on which guarantees their stability once on the site and allows to transport them.

The customer who contacted PNR Italia is a manufacturer of modular process skids for filtration, cogeneration, and water purification.

THE PROBLEM OF OUR CLIENT

The customer contacted us to **design a cleaning solution for a chamber of a water treatment process skid.**

The chamber is filled with wastewater in oily sludge through a inlet valve and emptied from a drain valve. The dirt is extremely stubborn in these areas and very difficult to remove once the chamber has been emptied.

Inside the chamber, there are also rotors and scraping blades to assist in handling waste material and subsequent cleaning.

Before our intervention, the cleaning activity was carried out manually with a pressure washer.

INDUSTRY

Wastewater treatment



APPLICATION OF PNR PRODUCTS

Cleaning of a modular process skid for wastewater treatment



PROBLEM

Cleaning of difficult to remove materials



PNR SOLUTION

Tank washing heads system



PNR SOLUTION

The PNR Italia technical office has designed a **system for cleaning the chamber** consisting of 3 UBT tank washing heads.

The choice fell on this type of heads for the size of the chamber and the pressures of use of the heads themselves - between 4 and 10 bars.

These characteristics are ideal for the automatic cleaning of industrial tanks and vessels. The nozzle movement is operated through an internal epicyclical gear reducer which enables to drive the jet paths according to a preset grid over the tank surface, providing a perfect cleaning of every single area inside the tank. Each side hub is equipped with two nozzles.

ADVANTAGES FOR OUR CLIENT

Before our intervention, the chamber was cleaned with a pressure washer working at 200 bar by an operator. This process ensured a high level of cleanliness in some points but not homogeneous over the entire surface of the chamber walls.

The solution proposed by PNR Italia guarantees an accurate and uniform level of cleaning, lower consumption of water and energy resources. Moreover, it relieves the operator of manually washing a tank with parts that are not easy to reach and encrustations that are difficult to remove.

FOCUS ON THE PRODUCT



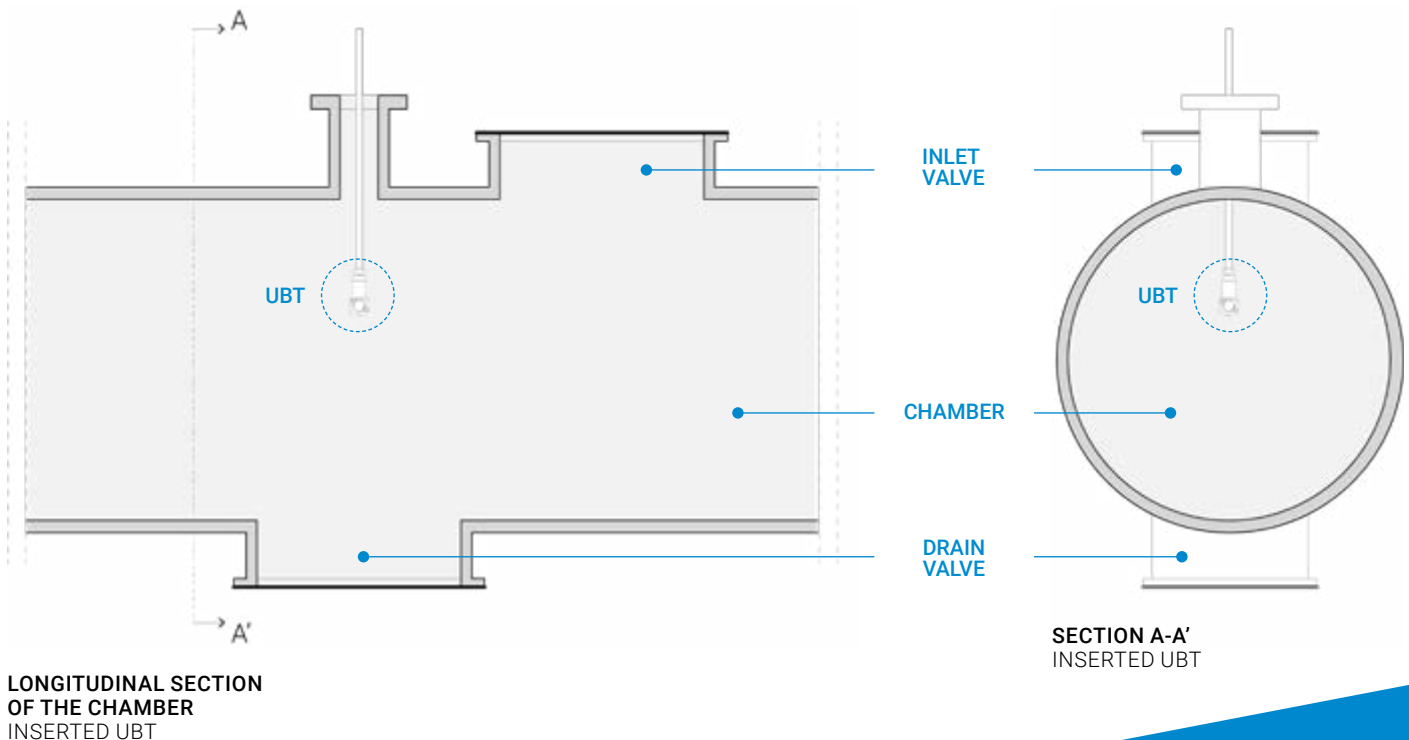
UBT
TWIN AXIS HEADS

The UBT series tank wash heads are very sophisticated devices, designed with a robust structure and constructed with the latest technology to allow for high performance and providing excellent disinfection after each wash cycle.

PERFORMANCES

UBT S445 B31CG

@PW= 4 BAR	UNIT OF MEASURE	THEORETICAL VALUE
SPRAY ANGLE	DEGREES	360°
FLOW RATE	LPM	88
TOTAL SYSTEM CAPACITY 88X3= 364 LPM @ 4BAR		



PNR ITALIA SRL

Via Gandini 2, 27058 Voghera (PV), Italy

For more information visit www.pnr.eu

Call or write us for customized solutions!

+39 0383 344 611 info@pnr.it