


Minitube

A Mellifiq reference project



Leading assisted reproduction company installs ozone system to remove antibiotics from process water

Complete pharmaceutical residues removal achieved by Mellifiq oxidation solution

MELLIFIQ

Minitube, Germany

Minitube is a German company, pioneering the assisted animal reproduction industry, and a provider of quality artificial insemination (AI) products. They are a global leader in assisted reproduction technologies ranging from AI to in-vitro-fertilization. The company works with customers in agriculture, sports, pet breeding, veterinary and human medicine, as well as research.

Facts

Name:	Minitube
Location:	Germany
Industry:	Assisted animal reproduction
Challenge:	Removing high concentrations of antibiotics from process water
Project value (USD):	10,000 - 100,000

Solution:

Mellifiq delivery:	Ozonetech RENA vivo A-series
Performance:	Complete pharmaceutical residues removal
Capacity:	1-5 m ³ /day
Dimensions HxWxD (cm):	180x120x80

The problem

Minitube coats their insemination equipment with antibiotics to prevent the spread of infection with pathogens. The production system needs to be rinsed regularly, thus the washing process water has a high concentration of active pharmaceutical ingredients (API), 1-2 g/l of various antibiotics. Such quantities of pharmaceuticals have a negative impact on the environment and must be removed before the water is released in the effluent.

Having previously used UV technology and hydrogen peroxide (H₂O₂) for treating their process water, but not obtaining the desired results, Minitube turned to Mellifiq for a sustainable solution that can ensure complete API removal.

The solution

To remove the active pharmaceutical ingredients from the process water, we have delivered an Ozonotech RENA Vivo A-series ozone-based solution that can process 1-5 m3 of water per day. The ozone unit is connected to their circulation system, where the water will be ozonated

until it achieves complete pharmaceutical inactivation, in other words, breaking down the hazardous substances.



RENA Vivo A-series

Evaluation

The advantages of our ozone solution are quite remarkable compared to their previous solution. Harmful chemicals can now be eliminated from the process water, and the energy use will be significantly reduced, since the UV system had a high consumption rate compared with the delivered ozone system, making the Mellifiq solution a much more sustainable alternative.

One of the most common alternatives to UV, ozone or H₂O₂ is to contract a third party for the thermal destruction of the polluted water. The cost for such an operation is substantial and it implies a very high energy consumption, which is unsustainable in the long run.

About Mellifiq

Mellifiq is a multi-awarded environmental service company group, that has since the early nineties evolved into a world leading system and solution provider with multiple groundbreaking applications for industrial, municipal, and real estate clients. We supply cutting-edge technologies to manage the most sophisticated air, water, and energy challenges.

Mellifiq offers a complete range of air and water treatment technologies and solutions across multiple industries such as processing industry, energy sector, food and beverage, pharmaceutical, wastewater treatment and commercial real estate.

Mellifiq offers strong and renowned brands, such as Ozonotech, Nodora and Water Maid, and world-class engineering services combined an excellent track record of more than 40 years of innovation. We help our clients achieve the most efficient and sustainable solutions while creating the maximum value for their businesses.

With several business units across Europe, Mellifiq is headquartered in Stockholm where research and development, production, QA and certification all take place. Our unique technology and our extensive expertise have made us the Center of Excellence for the world's most complex projects, and a global player with installations on all six continents.

Everyday millions of people rely on our solutions for ventilation, disinfection, sanitation, and odor control. We are committed to raising the bar for the concept of clean and the industry standard for engineering, technical services and general contracting.

For additional information, visit our website at www.mellifiq.com

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