

HYDROAIR

Membrane Separation Systems



Advanced Treatment of Oil Emulsions and Industrial Wastewaters

A Tailored System for ROBI Ambiente



HIGHLIGHT

Environmental Solutions | Case study

GMM
Pfautler

A Tailored Solution for ROBI

ROBI Ambiente is a leading Italian company specializing in the **recovery of exhausted oils** and **industrial wastewater treatment**.



Committed to environmental sustainability and regulatory compliance, ROBI entrusted HYDROAIR to develop an advanced, reliable, and fully compliant in-house treatment system for their complex effluents.



The Challenge

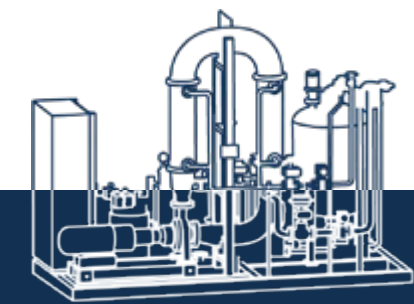
- › **INNOVATIVE SOLUTION** to treat oil-poor emulsions
- › **SEPARATION WATERS** and wash waters from vehicles & containers
- › **ON-SITE**

The goal was to eliminate the costly external disposal by tanker trucks and enable authorized discharge into the municipal sewer system.

HYDROAIR IS THE SOLUTION

Through **HYDROAIR's state-of-the-art membrane technologies** - ceramic ultrafiltration and reverse osmosis - a customized and integrated treatment system was designed and implemented

Close collaboration with ROBI was ensured throughout the entire project. As a result, the solution fully complied with both operational and legal requirements.



SYSTEM DESIGN
& OPTIMIZATION



Project Highlights

2010 - 2015

- 2010 Pilot Testing & Feasibility**
Comprehensive multi-phase pilot trials validated technical feasibility and provided essential data for full-scale design.
- 2010-2011 System Design & Optimization**
Detailed plant configuration and technical-economic proposal with a focus on reliability, efficiency, and process repeatability.
- 2011-2012 Authorization Support**
HYDROAIR prepared detailed technical documentation and supported ROBI in obtaining discharge permits by working with the regulatory authorities.
- 2013 Advanced Pilot Testing & Regulatory Updates**
Additional tests confirmed sizing and introduced boron removal. A granular activated carbon polishing step was added to comply with evolving discharge limits.
- 2014-2015 Construction & Commissioning**
The new plant was built and successfully commissioned, with HYDROAIR closely supporting start-up, staff training, and process optimization.

OVER A DECADE OF PROVEN PERFORMANCE

Since 2014, **the plant has demonstrated outstanding flexibility and reliability** despite variable wastewater characteristics. HYDROAIR continues to provide ongoing technical support, including membrane maintenance and rapid process adjustments, ensuring consistent compliance and operational excellence.

Key Benefits



In-house wastewater treatment capability



Reduction of external disposal costs



Authorized municipal sewer discharge



Cost-effective, sustainable operation



Continuous expert technical support

THE OUTCOME From a Project to a Partnership

HYDROAIR & ROBI have successfully transformed a complex technical challenge into a **strong and long-lasting partnership**.

Together, we have **created a reference industrial wastewater treatment solution** that combines innovation, sustainability, and regulatory compliance - setting the stage for future advancements.

Worldwide Presence



GMM Pfaudler is driven by 2000+ individuals across 4 continents and global manufacturing facilities around the world.

Targeted investments in strategic markets, innovation and competitiveness allow the GMM Pfaudler Group to be a landmark in the industry.

You can either click on the link or scan the QR-Code for more information about our global contacts.

[Global
Contacts](#)



80+
Countries

2000+
Employees

04
Continents