



CELDAR® TECHNOLOGY

Case history

COD AND SMELLS REMOVAL IN VINEGAR WASTEWATER

Location	ITALY
PRODUCED WASTEWATER	15 cubic meter/hour
Typical problems in wastewater	COD of poorly degradable substances and smell

TREATMENT PRINCIPLES AND AIMS

The customer asked us to evaluate the **ELECTROCOAGULATION SYSTEM** for the **COD and smells removal** to be able to drain the treated water into the sewer system.

Another option required was the possibility of **water recycling** with the least amount of consumption possible.

This option is possible using an **ELECTROCOAGULATION PLANT** since no chemicals are used and therefore the physical and chemical characteristics of the water to be treated have little variation compared to the treated water.

The obtained results and working conditions are below

Type of electrodes	CELDAR
Trial condition	7 - 14 Volt 35 - 70 Ampere
Temperature increasing (Joule effect)	Negligible
Foam	considerable presence and in compact form

		AS IT	After 30 min.	After 60 min.	After 90 min.	REMOVAL
pH		3,8	4,5	4,9	5,1	
Conductivity	milliSiemens	2,3	2,5	2,5	2,5	
COD	ppm	19500,0	10360,0	8400,0	5800,0	70,26
Smell		strong	absent	absent	absent	
Colour	APHA	320,0	120,0	10,0	5,0	98,44
TURBIDITY	NTU	1800,0	700,0	130,0	20,0	

The results obtained are satisfactory for carrying out a pre-treatment because the removal of COD deriving from poorly biodegradable substances was excellent and especially the problem of bad odour was solved.

No chemical-physical treatment had succeeded in obtaining a reduction of these parameters; therefore, the customer accepted the installation of an Electrocoagulation

