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CELDAR ® TECHNOLOGY
Case history
METAL WASHING WASTEWATER TREATMENT

Location	GERMANY
PRODUCED WASTEWATER	20 cubic meter/hour
Typical problems in wastewater	COD, Phosphorus, Zinc, Fluorides

TREATMENT PRINCIPLES AND AIMS

To design a **wastewater treatment plant**, the customer asked us to evaluate the **ELECTROCOAGULATION SYSTEM** for the **removal of typical pollutant in such wastewater** and to be able to drain the treated water into the sewer system.
Another option required was the **ZERO LIQUID DISCHARGE** and therefore the possibility of reusing the treated water 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 Electrocoagulation 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 1 Hour	After 2 Hours	REMOVAL
pH		7,6	8,2	8,4	
Conductivity	Mill-Siemens	2,3	2,5	2,5	
COD	ppm	2700,0	1400,0	560,0	79,26
Fluorides	ppm	25,0	10,0	1,8	92,80
Phosphorus	ppm	8,5	3,2	0,7	91,76
Zinc	ppm	12,0	1,6	0,1	99,17


80
60
20