



Case Study Application

Automotive Spare Part Industry – Electrocoagulation Waste Water Treatment Plant

ENGINEERING SOLUTIONS FOR OUR ENVIRONMENT, INDUSTRY AND COMMUNITY

CASE STUDY APPLICATION



Efficiency Matters!

One of the largest automotive spare part industry based in Jakarta – Indonesia is having issue with their 12 m³/day waste water treatment plant. Their current traditional treatment utilizing chemical treatment cannot fulfill the local effluent parameter required by the government regulation. The main waste water source comes from electroplating, spray booth paint, machining, coolant, boiler blowdown, tank wash, cooling tower waste, degreasing and domestic waste water. Below is the inlet before and after electrocoagulation laboratory test result after the electrocoagulation system being installed:

Parameter	Before EC	After EC	Efficiency (%)	Standards	Remarks
pH	5,61	6,71	16,39	6,0-9,0	O.K.
TSS	283,00	21,33	93,29	100,00	O.K.
Cr(VI)	0,30	0,04	86,67	0,10	O.K.
Zn	1,69	1,28	24,16	2,00	O.K.
Ni	0,12	0,05	58,33	0,40	O.K.
Fe	7,66	1,15	94,65	5,00	O.K.
TDS	840,00	1198,46	29,91	-	O.K.
Amonia, N-NH3	96,00	51,95	96,26	-	O.K.
COD	140000	2251,00	98,39	-	O.K.

As we can see from the result above, efficiency rate of the electrocoagulation system is very high to reduce all of the effluent waste water parameter required by the regulation.