Package Type
Electrocoagulation Systems

meto mühendislik

ELECTROCOAGULATION SYSTEMS

Electrocoagulation is a water treatment technology that uses electrical currents and metal electrodes to release ions into water, binding with pollutants and transforming them into larger, easily removable particles.

How it works?

The electrical current reacts with metal ions in the electrodes to form metal hydroxide flocs. These flocs capture and aggregate contaminants like oils and dyes, causing them to settle or float in the water.

What are the advantages?

- Higher efficiency in chemical treatment.
- Easy to use and maintain.
- No chemical usage.
- Effective in removing multiple pollutants.
- Fully automated.

Industries

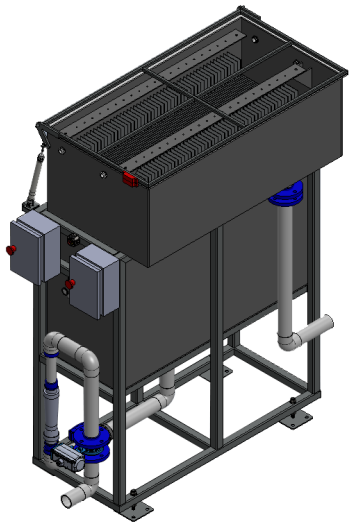
- Car Wash
- Food
- Mining
- Packaging
- Textile
- Automotive
- Chemical
- Pharma

Applications

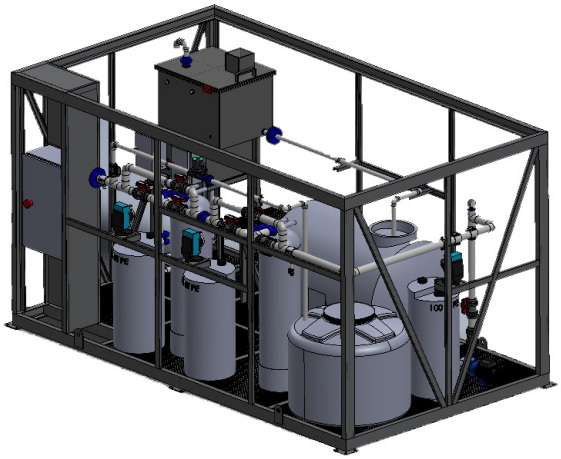
- Oil and Grease Removal
- Color Removal
- High COD Removal
- Suspended Solids Removal
- Heavy Metals Removal

Explore our full product range at metamuhendislik.com

ELECTRA SERIES



Package Type Electrocoagulation System



On-Skid Full Treatment Plant

	ELECTRA 25	ELECTRA 50	ELECTRA 75	ELECTRA 100
WASTEWATER FLOW m^3/day	25	50	75	100
CURRENT (A)	100	200	300	400
POWER (kW)	4,8	9,6	14,4	19,2
REACTOR VOLUME (L)	250	500	750	1000
REACTOR MATERIAL	PP	PP	PP	PP
SKID MATERIAL	AISI304	AISI304	AISI304	AISI304
CONTROL	PLC	PLC	PLC	PLC
OPERATOR PANEL	7" HMI	7" HMI	7" HMI	7" HMI

Explore our full product range at metamuhendislik.com

CASE STUDIES

CASE STUDY 1

Industry:
Mining

Wastewater Source:
Surface water from mining area.

Capacity:
120 m^3/day

Main pollutants:
Boron, TSS, Silica, Sulfate

Purpose of application:
EC system was used as a pre-treatment before ultrafiltration and reverse osmosis systems.

Results:
>70 percent treatment efficiency was achieved in Boron removal.

Inlet Boron Concentration:
4200 mg/L

Outlet Boron Concentration:
<950 mg/L

Inlet Silica Concentration:
70 mg/L

Outlet Silica Concentration:
11 mg/L

CASE STUDY 2

Industry:
Car Wash

Capacity:
30 m^3/day

Wastewater Source:
Car wash wastewater

Main pollutants:
COD, TSS

Purpose of application:
EC system was used to remove COD and TSS from car wash wastewater to bring it to a quality for reuse.

Results:
60% COD removal was achieved. Car wash wastewater was brought to a quality suitable for reuse after treatment with on skid system including EC, filtration and disinfection.

@metamuhendislik @metamuhendislik @metamuhendislik