

Anodic Protection

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Feasibility of anodic protection is first demonstrated and tested by C. Edeleanu of Tube Investments Research Laboratories, Cambridge in 1954



Corrosion control of metal structure by impressed anodic current.

Interface potential of the structure is increased into passive corrosion domain.

Protective film is formed on the surface of metal structure which decrease the corrosion rate down to its passive current.

Can be applied for active-passive metals/alloys only.



- Anodic protection has been applied to protect storage tanks, reactors, heat exchangers and transportation vessels for corrosive solutions.
- Heat exchangers (tubes, spirals and plates types) including their anodic protection systems can be easily to purchase in the market.
- i.e. AISI 316 SS HE is used to handle 96-98% sulfuric acid solution at 110⁰C. Anodic protection decreases corrosion rate of the stainless steel, initially from 5mm/year down to 0.025mm/year and therefore less contaminated sulfuric acid can be obtained.



