

Automated Quenching Tank

This automated quenching tank is designed for hardening processes requiring safety, energy efficiency, and full automation. It ensures proper heat treatment with appropriate configurations to meet specific cooling requirements.



ADDITIONAL IMAGES



Overview



A comprehensive view of the multifunctional automatic quenching tank system.

Automated Quenching Tank

This multifunctional automatic quenching tank is engineered for industrial heat treatment, focusing on safety, energy efficiency, and environmental compliance. It integrates advanced automation, including PLC-based digital control and Ethernet connectivity, to support smart factory integration. The system is designed for versatility, accommodating various quenching media and offering customizable configurations for heating, cooling, and material handling.

Core Features



Forced stirring system ensuring convective flow and uniform temperature distribution.



Internal heating module for maintaining optimal quenching medium temperature.

Integrated Systems

- Heating System (Electric/Steam)
- Cooling System (Water/Air)
- Circulation & Stirring
- Nitrogen/CO2 Fire Extinguishing
- Oil Smoke Purification
- Automated Lifting Mechanism

Supported Quenching Media

Water, Quenching Oil, Quenching Salt, Double Liquid, Continuous

Technical Specifications



The robust quenching tank body, designed for durability and thermal efficiency.



Cooling cycle device and heat exchanger for precise process temperature control.



PLC-based control panel for intelligent, automated process management.

Cooling Device Types

- Plate Heat Exchanger
- Spiral Heat Exchanger
- Tubular Heat Exchanger
- Open Cooling Tower
- Refrigerator
- Air Cooler

Tank Construction

Section steel skeleton with thickened steel plate, manual arc welded; 50-100mm aluminum silicate ceramic fiber insulation.

Control Interface

Siemens PLC with touch screen interface; Ethernet connectivity for digital factory integration.



Integrated fume purification system to ensure environmental compliance.

Safety Systems

Fire Extinguishing System • Oil Smoke Purification • Emergency Stop • Liquid Level Detection • Pressure Monitoring