



Your Solution Partner in Industrial Cleaning



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SECTORS AND APPLICATION AREAS WE SERVE

- Wastewater Treatment Plants
- Drinking Water Treatment Plants
- Water Tanks
- Pumping Stations
- Infrastructure & Collector Lines
- SA 2.5 Sandblasting & Industrial Painting
- Combined Unit / Vacuum / Water Truck
- Concrete / Plaster / Painting / Renovation
- Negative Waterproofing (PU Injection)
- Epoxy Flooring
- Anti-Corrosion Applications
- Mechanical Dismantling & Installation

- Cement Plants
- Biogas Plants
- Thermal Power Plants
- Rolling Mills
- Iron & Steel Plants
- Landfill Gas Plants
- Biomass Plants
- Automotive / Paint Shops
- Mining Sites
- Ports & Ships
- Petrochemical Plants
- Dam Gates & Spillways















PETROCHEMICAL WORKS



1. Cleaning Requirements in Refinery Facilities

- ✓ Fouling layers caused by high temperature and pressure
- ✓ Formation mechanisms of fouling, scaling, coke and sludge
- ✓ Impact on process efficiency and energy consumption
- ✓ Impact on equipment lifetime and maintenance cost

2. Industrial Cleaning Methodology

- ✓ Chemical cleaning: selection of acids, alkalis, solvents and inhibitors
- ✓ Mechanical cleaning: high-pressure jetting, mechanical scraping
- ✓ Thermal cleaning: steam, hot oil circulation
- ✓ Vacuum cleaning and inert gas applications



3. Column Cleaning - Detailed Workflow

- ✓ Removal of column trays/packing
- ✓ Dissolution of heavy hydrocarbon and polymer deposits
- ✓ NDT tests of internal surfaces:
PT, UT, MT
- ✓ Internal pressure testing and reassembly processes



4. Drum and Separator Cleaning

- ✓ Analysis of sludge, wax, emulsion and sediments
- ✓ Decanter and hot oil circulation methods
- ✓ Dismantling and cleaning of lines and fittings
- ✓ Pressure testing and leak-tightness checks



5. Tank Cleaning - Advanced Methods

- ✓ Robotic cleaning systems for crude oil tanks
- ✓ Sludge mobilization, heating and mixing techniques
- ✓ Gas-freeing, inerting and confined-space safety
- ✓ Tank floor and roof NDT inspections



6. Heat Exchanger Cleaning - In-depth Technical Content

- ✓ Tube bundle removal and mechanical cleaning techniques
- ✓ Setup of the chemical cleaning loop
- ✓ Chemical selection algorithm by contaminant type
- ✓ Hydrotest, penetrant testing and recommissioning



7. Maintenance Equipment and Technologies

- ✓ Mobile jetting units (500-3000 bar)
- ✓ Vacuum trucks and closed-loop cleaning systems
- ✓ Heating boilers, pumps and pressure systems
- ✓ Advanced robotic cleaning tools



8. Occupational Health and Safety - Critical Steps

- ✓ Confined space permit system
- ✓ Gas detectors - O₂, H₂S, LEL, benzene
- ✓ LOTO procedures and isolation plan
- ✓ Emergency procedures and rescue equipment



9. Complete Maintenance Flow Chart

- ✓ Preparation - risk analysis, isolation, gas-freeing
- ✓ Cleaning - selection of chemical, mechanical and thermal methods
- ✓ Mechanical maintenance - dismantling, repair, installation
- ✓ Testing - pressure, NDT, functional tests
- ✓ Reporting and commissioning

10. Conclusion and Recommendations

- ✓ 15-30% efficiency increase with a planned maintenance cycle
- ✓ The right combination of chemical and mechanical methods
- ✓ Digital reporting, IoT sensors and continuous monitoring