

Train Exterior Washing System

This train washing system is engineered for automated cleaning of passenger electric multi-unit trains. The system effectively removes dust, dirt, and stains from the train's exterior surfaces.



ADDITIONAL IMAGES



Overview

Automated Train Exterior Cleaning Solution

The Train Wash Plant (TWP) is a high-efficiency automated system designed to clean the exterior surfaces of passenger electric multi-unit (EMU) trains. It effectively removes dust, dirt, and stains using a combination of rotating brushes and high-pressure water jets, ensuring a professional finish. The system is engineered for sustainability, featuring a sophisticated water treatment sub-system that recycles up to 80% of wash water.

Performance Metrics

Key Performance Metrics

4 trains/hr

Capacity (6-coach trains)

80 %

Water Recycling Rate

50000 trains

Brush Service Life

75 dB

Max Noise Level

Operational Capabilities



The system is typically installed along a 60-meter track inside a depot, featuring sealed washing stations to prevent splashing.

Washing Process Stages

- Initial wash
- Wetting
- Chemical application
- Cab nose wash
- Roof wash
- Eaves wash
- Lateral wash
- Rinsing
- Drying

Available Modes

Automatic Wash, Manual Maintenance, With Chemicals, Without Chemicals

Technical Specifications



The automated control center manages the multi-stage washing process from initial wetting to final drying.

Technical Data

Parameter	Value
Train Speed during Washing	3-5 km/h
Total Water Consumption	2400L/train
Tap Water Consumption	500L/train
Water Treatment Capacity	8 MT/hr
Chemicals Consumption	0-4L/train
Compressed Air Consumption	0.8 m ³ /min
Power Supply	380VAC, 50Hz
Dimensions (L x W x H)	66 x 8.6 x 6.5m

Eco-Friendly Design

Yes

Features & Technology

System Features

- Full automation with PLC control and console
- Redundant trackside sensors for fail-safe operation
- CCTV monitoring of the entire washing process
- Unique brush design with adjustable touching force
- Profiling train end wash to protect rain wipers
- Automatic malfunction alerts and easy troubleshooting
- Integrated water treatment and recycling sub-systems