

## Automatic Coach Washing Plant (ACWP)

Konkan Railway had developed 'Automatic Coach Washing Plant' and the same has been in use since last 7 years at the Coach Care Centre. A new design of 'Automatic Coach Washing Plant.' was developed and has been successfully commissioned at the Coach Care Centre Madgaon in the month of November 2012 and the same is working satisfactorily.

The Automatic Coach Washing Plant is a multistage external cleaning system for coaches/trains, using high pressure water jet, horizontal and vertical rotating nylon and cotton combination brushes.

The train operation in Konkan Railway is on diesel traction passing through a large number of tunnels. This makes the coach surface very dirty and difficult to clean using the manual/conventional methods. The setting up of 'Automatic Coach Washing Plant' at Madgaon and Ratnagiri Coach Care Centre of this Railway has overcome this problem and the trains now wear a very clean and shining look. The 'Automatic Coach Washing Plant' is a multistage external cleaning system for cleaning coaches/trains, using pressurized soap solution and water jets alongwith horizontal and vertical rotating nylon and cotton combination brushes to clean complete exterior of the coaches in a rake while being placed on the pit line for maintenance.

**Need for Automatic Coach Washing Plant :** Besides providing safe and reliable service to the travelling public, it is also necessary for the Railways to offer the convenience of neat and clean coaches to the passengers. The 'Automatic Coach Washing Plant' is a step in that direction.

### Advantages.

- Excellent quality external cleaning of full length trains of 24 coaches achieved within 10 to 15 minutes, while being placed on the pit line for primary/secondary maintenance.
- The plant does away with the very labour intensive activity of external cleaning of Passenger trains.
- Reduced requirement of water and consumables as compared to conventional cleaning methods.
- Requires minimal electrical energy, maintenance and manpower requirement for operation.
- The plant is able to clean and disinfect the area of coach/bogie, below the toilets which is otherwise not cleaned manually.
- Eco-friendly (less water, less energy and less soap).
- Water used for washing coaches can be treated through 'Effluent Treatment Plant' which is recycled & reused. This helps in conservation of water.
- It is user friendly, sturdy, easy to maintain and economical.
- It has additional features for under gear, bogie and roof cleaning.

### The Road Ahead.

Konkan Railway can set up similar plants at various coach maintenance depots of Indian Railways at an approximate cost of Rs. 1.25 Crore each against imported Coach Washing Plants, which cost in the range of Rs. 6-7 crores. 'Effluent Treatment Plant' and 'Water Softening Plant' can be provided at an additional cost on demand. Further efforts have been made to explore the reduction in overall cost and different product options to make it more competitive and valuable.

Konkan Railway has also executed a project of design, fabrication, installation, testing and commissioning of 'Automatic Coach Washing Plant', on turnkey basis, for Dum-Dum (Noapara) car shed of Metro Railway, Kolkata successfully in 2013 and the same is working satisfactorily.

Efforts have also been made to explore further reduction in overall cost and different workable options to make this product more valuable and as a result, two designs of coach washing plants have been developed. Furthermore, offering this service on Build, Own, Operate (BOO) model has also been planned.

A large number of coaching depots of Indian Railways have been surveyed to examine the feasibility of installation of this plant. Based on interests shown by various Railways due to the techno-economical benefits, it is expected that more plants will be installed in Railways in future.

**Automatic Coach Washing Plant(ACWP), Coach Care Centre,Madgaon, Goa**





Updated : 03.01.2025