

TRAIN WASHING PLANT



To enhance their image, all railway networks have to provide clean rolling stock. Cleanliness demonstrates the network's efficiency to its customers and provides an improved traveling experience. **NEU Train Washing Plants** (Drive-Through or Moving Gantry systems) are completely flexible and modular and their operating reliability ensures trouble-free washing and clean rolling stock.

CONCEPT

Whatever the train configuration, **NEU Train Washing Plants** can be tailored to match different rolling stock profiles, drive-through speeds, frequency of use and other specific requirements. **NEU's robust and modular** design is a guarantee of reliable operation.

A typical installation is mainly composed of:

- **Equipment** located along the track :
 - Spray arches equipped with water spraying nozzles (rotating or fixed) for pre-wetting,
 - Spray arches equipped with detergent spraying nozzles (with sampling and temperature sensor if necessary),
 - Brushing stations (single or double brush) with spraying nozzles for efficient cleaning of body sides, eaves, skirts and the vehicle roof as required,
 - Train rinsing station with softened water or reverse osmosis system,
 - Drying station with fan blowers for a perfect finish.
- **Preparation unit** including distribution and control systems for water and detergents:
 - Water softener or reverse osmosis system,
 - pH control,
 - Water tank,
 - Detergent storage tank fitted with dosing and transfer equipment,
 - Temperature controller.



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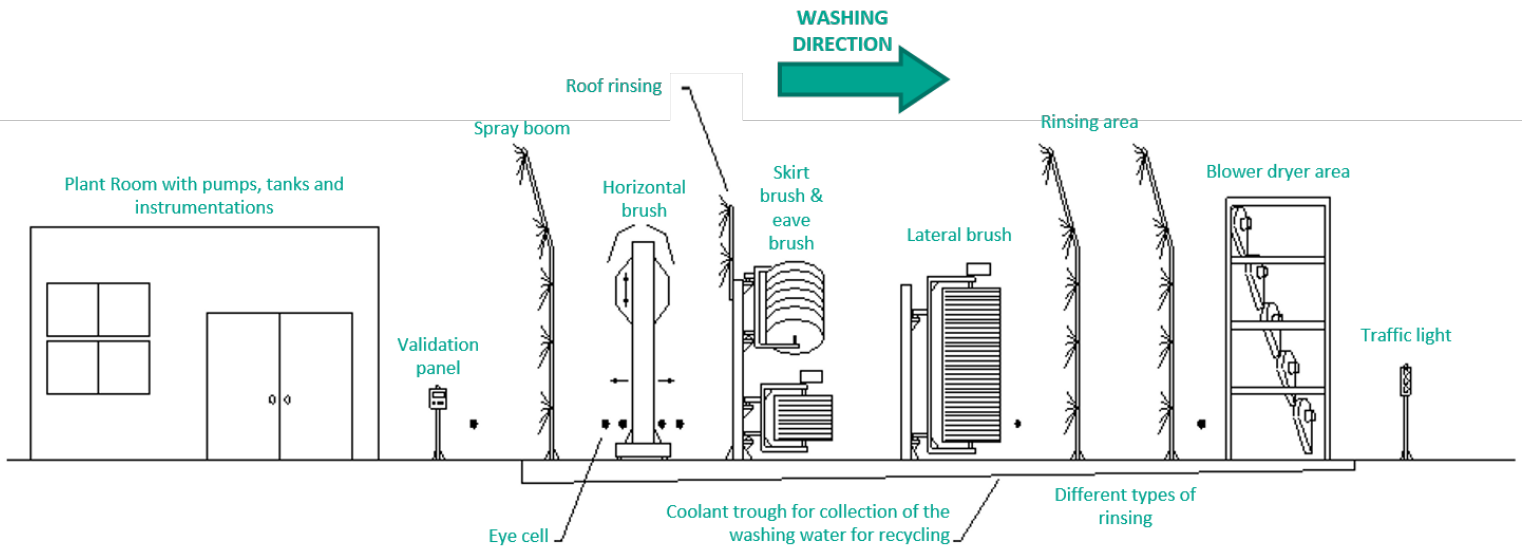
- **Washing water reclamation and recycling installation** with:
 - Filtration and neutralization systems,
 - Solid collector system with separator and compactor,
 - Recycled water storage tank for reuse during another cycle,
 - Biological/Chemical treatment (80 % recycling).

CHARACTERISTICS

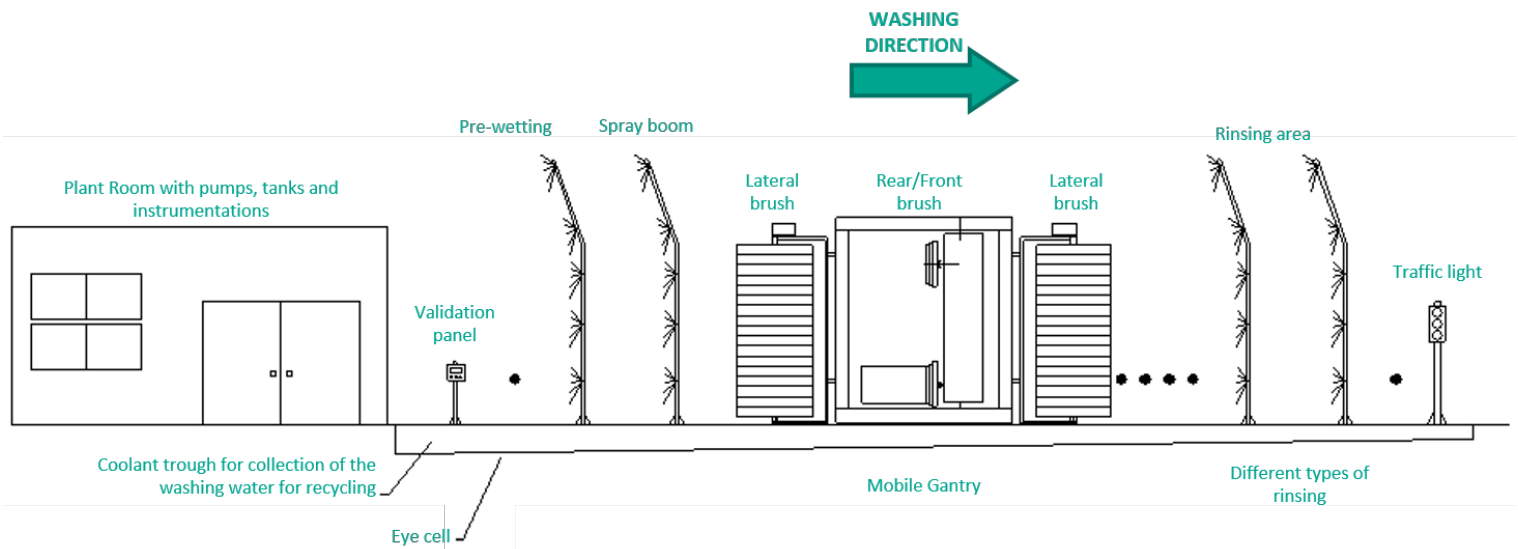
- ✓ **Robust** mechanical design for **more reliability** during operation,
- ✓ Operation possible in **both directions** for drive-through system,
- ✓ Water flow and pressure fully **adjustable** at each station,
- ✓ **Automatic activation of the washing cycles**,
- ✓ **Automatic stop** in case of fault detection (open doors, low water level, too high speed, ...),
- ✓ **Contact pressure control** during washing to **optimize** cleaning efficiency and to minimize wear,
- ✓ Total or partial water **reclaim** adapted to the network's requirements,
- ✓ **Low water consumption** and no waste water losses,
- ✓ **Low** operating and maintenance **costs**,
- ✓ Fully **automated system** from identification of train type (by means of tagging) to water treatment cycle with minimum human intervention required,
- ✓ **Automatic frost protection**.

TRAIN WASHING PLANT – SCHEMATIC DIAGRAM

- Drive-Through system :



- Moving Gantry system :



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