

## » MOBILE PUMP TROLLEY (FOR RAILWAY FOUNDATIONS)

The end-user is a manufacturer & supplier to the Railway Industry, & they were looking for a bespoke pump trolley suitable for the rail industry, that could empty 25L jerry cans, filled with a toilet cleaning product, in 1 minute. Tapflo UK's team was happy to oblige & set to work straight away. The solution needed to achieve 25L/min with a discharge of 3m.

### Pump Solution:

As a completely mobile solution was required, and the end product would potentially have to cross railway tracks, we could not have live electric lines running across the floor. Typically, with a Tapflo designed mobile solution, the wires to power the pump, run from the unit along the floor to the PowerPoint, this was not an option with this solution. The complete system was designed in house by Tapflo UK's Technical Engineering Team and was made bespoke to suit the client's requirements.

Our team designed and fabricated a robust trolley system that was completely battery-powered, and one of our first ever completely mobile & power independent pumping systems. The battery was required to be charged from 110v AC electrics which is standard for the Railway Industry. The battery is 17AH rated and provides 1 hour of operation before needing to be charged.

To limit the electrics needed and reduce the footprint of the trolley, we used a 24v DC Pump and battery/buffer module to ensure the high amperage pull of the motor during start-up was well accounted for. The Battery Monitor is fitted to the front of the trolley, underneath an ergonomically designed push bar, to give the operator current life conditions of the battery itself.

The wheels had to be puncture-proof and large in both diameter and width (ø260 x 85 mm), front 2x swivels and rear 2x brake swivels. The trolley has a top removable cover fitted to protect against environmental weather conditions and potential accidental damage from operators, and the electrics have been shelled inside their own control panel for added further protection.

The final solution was painted Sun Yellow as per train industry standards with a signal black push bar for the artistic flare.



**From Render to Reality:**



**Features & Benefits:**

- ✓ The battery on the unit lasts for 1 hour, allows ~60 toilets to be serviced on one charge
- ✓ Protected against environmental factors
- ✓ Small footprint for easy manoeuvrability through doors
- ✓ Discharge hose wrap support for easy storage when not in use
- ✓ 2x 25L jerry can storage on the front of the trolley which the
- ✓ pump can easily suck and with a skeletal frame for jerry cans to allow easy run-off/drainage in case of spillage.
- ✓ The unit features Flexible Impeller Pumps due to self-priming capabilities, as well as an extremely robust design and chemical resilience.
- ✓ Stainless steel trolley frame had rolled edges as additional safety for operators.

Ergonomic design with push bar allows easy movability by the operator.

If you're looking for a complete solution, our team of Technical Engineers are available to design and build a unit that meets all your requirements.

**Contact the team today to get started on a bespoke solution for your industry requirements.**