

TEST SETUP FOR ROLLER COASTER ON CRUISE SHIP

BEING THE FIRST COMPANY TO BUILT A ROLLER COASTER ON A SHIP
ALSO MEANT MASTERING NEW CHALLENGES IN TESTING!

Usually, roller coasters are not completely built for testing nowadays. By modern computer programs, production and measuring methods, it is possible to plan and manufacture the coaster completely, so that in the

end everything fits exactly to the millimeter at the customer.

In the case of the coaster Bolt for Carnival Cruise Lines, the available time for fitting it

on the ship is very short, so it was decided to do the main work of erection and testing at a test site next to Maurer's premises in order to save time during the final ship installation.



1. Preparing the construction site

A plot of land measuring 120 m x 60 m (394 ft x 197 ft) was rented directly next to the company's premises. The uppermost soil layer was removed. The position of the foundations measured and excavated.



2. Foundations

With a total of 41 supports, the foundation recordings were precisely placed, measured and aligned. The foundations were filled in again and the soil compacted.



3. Support mounting

The individual support elements are positioned and bolted together.



4. Track mounting

A crane is used to lift the rail segments to the correct position and bolt them together with the supports.



5. Rack assembly

A robot specially developed for the rack assembly is lifted onto the rail and precisely attaches the individual tooth segments to the rail.



6. Mounting the conductor rail

The necessary power for the vehicle is provided by a conductor rail which is bent 3-dimensionally and attached to the crossbars of the rail.



7. Commissioning

After completion of the installation, connection to the power supply and the control system, commissioning began. Here the control system was put through its paces and tested to check whether the acceleration of the vehicle met the standard guidelines. After completion of all tests, the track was approved by the 3rd party safety inspection body, TÜV. After subsequent dismantling, it will then be sent to Finland for final installation at the Meyer Turku shipyard on the cruise ship Mardi Gras.