



PLANNING AND MANUFACTURING OF RAIL STRINGS BASED ON TRACK LAYOUT

New and existing tracks have specific parameters such as topography, railway stations and bridges, which must be considered in the detailed layout. Due to these specific track parameters, turnouts, insulated rail joints, transition rails and other components must be positioned according to track requirements.

The current method in many railway networks is the delivery of standard rail lengths in lengths of 60, 108 or 120metres to the construction site, and performing all the necessary operations on site, such as cutting, welding, installing insulated rails joints. This delays the track laying process and results in additional down time.

Networks with high traffic require solutions which permit keeping down time as short as possible

For this reason, it is common practice for a long time, e.g. in Germany, to manufacture the rails strings specifically to track requirements in specially equipped welding plants and to deliver the customized rail string to the construction site -> reduction of track down time!

Benefits to the customer

- » Rail strings are supplied, customized and ready for installation at the job site
-> less track down time -> increased track availability
- » Manufacturing of rails string is transferred to a location outside the railway track
- » Sourcing of required components, including manufacturing of the rail string(welding, insulated block joints, transition rails), are carried out by one supplier
- » Less coordination necessary for the supply and delivery of components



CUSTOMIZED RAILS STRINGS TO OPTIMIZE INSTALLATION AT CONSTRUCTION SITE

1) Processing of the track layout according to customer needs consists of

- » detailed plans from point A to B
- » consideration of already existing track components (e.g. turnouts, crossings, bridges)
- » flash butt welding of rails up to lengths of 240m /360m
- » optimized scheme for partitioning of rails for track segments
- » installation of required insulated block joints, transition rails etc.
- » optimized transportation method (standard wagons or special rail trains) taking technical and economic aspects into consideration

2) Manufacturing of such customized rail string in the welding plant, including all

- » required rails
- » flash butt welding of rails
- » insulated block joints plus flash butt welding within the rail string
- » transition rails (in cases where 2 different rail profiles must be combined), including flash butt welding within the rail string
- » optional milling the surface of the rail string
- » safe loading onto defined transportation equipment

3) Organization and responsibility for transport to the construction site, together with logistic partners