

ESKISEHIR LRT EXTENSION

English



TracFeed® GFK1000 & TracFeed® TDx
Project Report



A POWERFUL COMBINATION FOR TRAM AND LIGHT RAIL

As general contractor, Balfour Beatty Rail Sweden, the former sister company of Rail Power Systems (RPS), undertook the building of the existing LRT line in 2003 using of the TracFeed® GFK1000 contact line system developed by Rail Power Systems Germany. Plans were then made to expand this line.

The need for the expansion is the rise in population Eskisehir has seen over the past few years and the resulting growth of the city's infrastructure. The city has also experienced an increase in students attending the two large universities and had been facing the problem of its outskirts only being accessible by car or bus. City planners, therefore, decided on an expansion of the tramway network in an effort to satisfy the increased demand for public transportation.

The services rendered by Rail Power Systems were comprised of:

1. A system study conducted by our Systems Design department in Offenbach
2. TracFeed® TDA switchgears for DC 750 V and rectifiers
In total: delivery of eleven DC substations
3. Supervision of the installation on site by Rail Power Systems during the construction phase
4. Support during commissioning and final inspection of the system

5. Supply of contact line components for the TracFeed® GFK1000 contact line system

The order was placed with Rail Power Systems in the spring of 2012. The project was successfully completed after two years of construction.



Mast disconnector with motor drive



The system operator, ESTRAM, applied the findings of the system study to calculate its power requirements and accurately plan the dimensions of its substations. This means that the received the specifications for the dimensioning and the performance requirement for their transformers, medium-voltage switchboards, high-voltage cables, contact line and DC switchgear, as provided by the results of the system study. Project managers also developed a contingency plan that will ensure reliable operation in the event of a substation outage.

Following the confirmation of the system study, the DC switchgears and rectifiers were manufactured and delivered in May 2014. Contract award for the contact line components was in May 2013. Delivery completed 12 months later. The remaining shipments were delivered over the course of 2014.

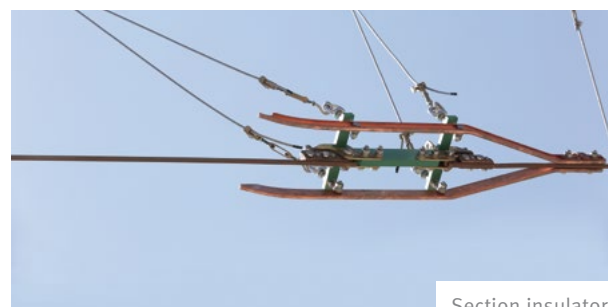
The lines were successfully handed over to the operator ESTRAM in April and June of 2014.



DC switchgear in traction substation

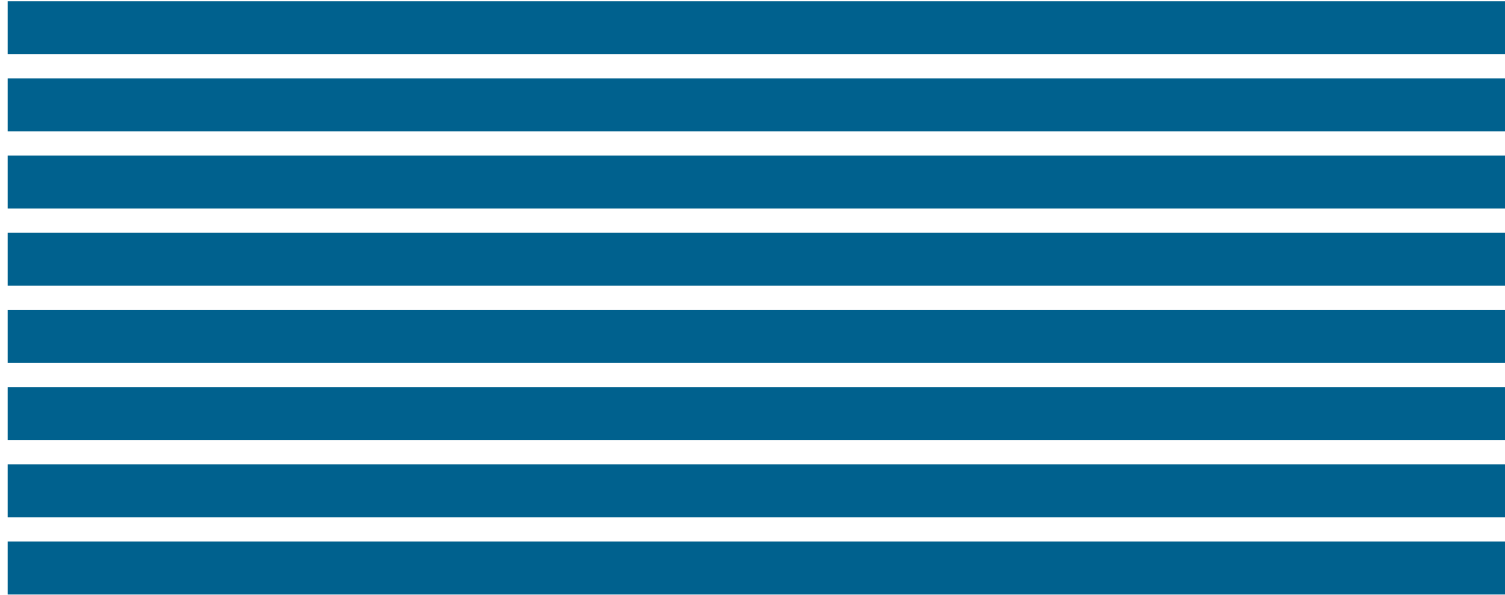


Semi-integrated tension wheel



Section insulator





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The specifications set out in this document apply to popular applications. They do not represent performance limits. This means that divergent specifications may be attained in specific applications. The contractually agreed specifications alone shall apply. We reserve the right to effect technical modifications. TracFeed® is a registered trademark of Rail Power Systems GmbH.