

TracFeed® GFK1000 and TracFeed® TDx –
A POWERFUL COMBINATION
FOR TRAM AND LIGHT RAIL
ESKISEHIR LRT EXTENSION





Expansion of the LRT line in Eskisehir

Acting as the general contractor, Balfour Beatty Rail Sweden built the existing LRT line in 2003 with the help of the contact line system TracFeed® GFK1000 developed by Balfour Beatty Rail Germany. Plans were then made to expand this line.

The reason behind this undertaking 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 that its outskirts could only be reached 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 Balfour Beatty Rail are comprised of:

1. System study conducted by our Systems Design department in Offenbach
2. Switchgears TracFeed® TDA for DC 750 V and rectifiers. In total: delivery of eleven DC substations.
3. Supervision of the installation on site by Balfour Beatty Rail during the construction phase
4. Support during commissioning and final inspection of the system
5. Supply of contact line components for the contact line system TracFeed® GFK1000 (cantilevers, semi-integrated tension wheel assemblies, section insulators, motor drives for disconnectors, mast disconnectors)

The order was placed with Balfour Beatty Rail in the spring of 2012, and the total time of completion was two years.



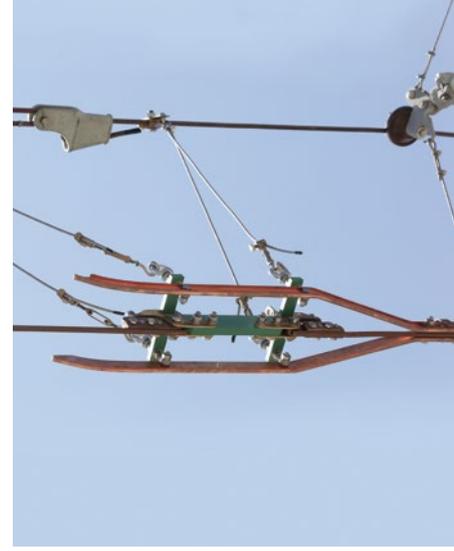
Mast disconnector with motor drive



DC switchgear in traction substation



Semi-integrated tension wheel assembly



Section insulator

ESTRAM applied the findings of our system study to calculate their power requirements and accurately plan the dimensions of their substations. This means that our customer received the specifications for the dimensioning and the performance requirement for their transformers, medium-voltage switchboards, high-voltage cables, contact line and DC switchgears from us. Project leaders also developed a contingency plan that will ensure reliable operation in the event of a substation outage.

Following the confirmation of our system study, we manufactured the DC switchgears and rectifiers and delivered the last of these components to the customer in May 2014. We were awarded the order for the contact line components in May 2013. Delivery was made 12 months later; the remaining shipments will be delivered in the course of 2014.

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



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