Liracos

the Furrer+Frey Light Rail Overhead Contact Line System

Flying steady arm pull-off

Cable instead of cantilever tube

Messenger wire head for one or two cables

Furrer+Frey®
Overhead contact lines

Liracos

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Light rail transit is the answer to the urban transport problem.

Recent advances in motive power engineering, modern car bodies and attractive public facilities such as waiting rooms and platforms have made light rail systems popular, so that people accept them as an efficient form of transport.

Public authorities, residents and users of light rail systems emphasize the unobtrusive merging of the fixed installations in the cityscape.

Cantilever geometry with horizontal adjustment

It is just here that LIRACOS figures with its elegant, light and versatile overhead line system for such transport. With LIRACOS, Furrer+Frey offers an overhead contact line system which dependably satisfies the high aesthetic and technical requirements of light rail systems with few elements and low costs.

Inconspicuously slender, the tubular cantilevers or ropes of synthetic material carry the necessary contact wires and carrying cables.

The choice of material is dictated by the loadings of the cross spans and cantilevers. Compact design enables unobtrusive supporting structures and cantilevers to be achieved, combinable with other constructional supports.

Moreover any colour finish is possible, so that as part of the fixed installations the overhead contact line merges well into the environment and the neighbouring buildings, or contrasts with them deliberately.

The pultruded tubes consist of a high proportion of glass fibres laid longitudinally and diagonally, bonded with unsaturated polyester or epoxy resin.

Single or double steady arm with contact wire

The cantilever and steady arms being fully insulated means that no current carrying parts extend over the contact wire plane.

The cables, covered with a protective sheath, are made of parallel oriented or braided polyamide or aramide fibres.

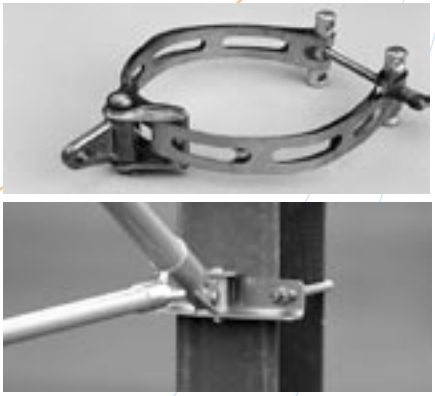
Fittings are aluminium castings or pressed from stainless steel. All these rustproof parts and materials have acquitted themselves during years of service on railways and shipping under the most arduous conditions, such as alternating mechanical loads, severe climates, salt water and extreme solar and uv radiation.

As designers and contractors for overhead contact line equipment, Furrer+Frey has invested its entire experience in the development of LIRACOS. This is an advantage you can put to use.

Furrer+Frey will be pleased to talk to you or submit a project proposal. We can show you LIRACOS in place.

Maybe you prefer the conventional technology with insulators and aluminium tubes? No problem!

We employ the same components with suitable insulators and aluminium tubes.



Mast connection on section girder or to tubular mast

Preferred applications for LIRACOS with tube combination 70/55/38 mm or 55/38/26 mm diameters

DC overhead contact line systems	up to 4 kV
Other voltages	on enquiry
Contact wires to EN 50149	85, 100, 107, 120, 150 mm2
Pull on contact wire	up to 15 kN
Messenger wires	50 to 170 mm2
Pull on carrying cable	up to 15 kN

our partner for planning, supplying and erecting LIRACOS - the overhead contact line system for Light Rail transportation.

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