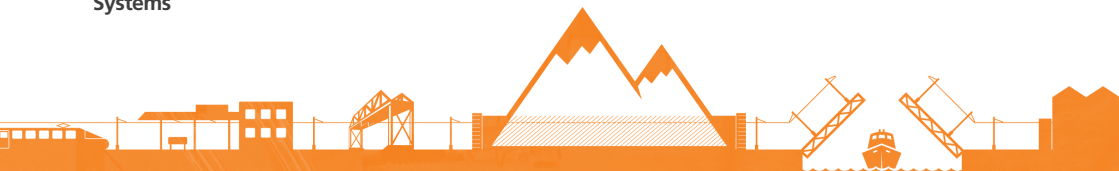

Rigid Overhead Conductor-rail Systems



ROCS needs more drop tubes and roof fixings than traditional OLE?

Yes there are more drop tubes than conventional OLE. Each provides redundancy for others, so reliability is improved and failure risk reduced. Future maintenance is safer and easier as a result.

That sounds expensive!

The initial outlay for ROCS can be slightly higher than OLE but the whole life cost is lower and the safety and reliability benefits are realised immediately.

I heard conductor-rail is only good for tunnels with slabtrack?

No, F+F conductor-rail has been modelled using real UK track data from the Vampire system. This was inputted into the model using real train body movements affecting the pantograph at 125mph and 75mph. This showed no significant difference between slab or ballasted track. No change to track maintenance regime is required. It has also been installed and tested in several UK tunnels and meets TSI requirements.

What if I need to change a section?

Short sections can be removed and easily replaced in a few hours leaving a permanent repair. As ROCS is not tensioned it is even easier than a splice in a traditional OLE system.

I need electrical sectioning.

In-line section insulators are available and installed on line speeds up to 200kmph

What about bi-metallic corrosion with the copper contact wire?

The patented CR4 profile includes a special profile shape which prevents any ingress of water or condensation from contacting the bi-metallic interface and diverts it to the drain holes. A thin layer of conductive grease keeps the metals apart. This single grease application is proven to last the lifetime of the contact wire.

With Movable Overhead Conductor-rail System (MOCS) Do I have to make my whole depot length moveable?

No, you can just make the section above the pantograph move if you prefer.

This sounds perfect for my low bridge on the down suburbs nearby

Remember conductor bar is approximately 115mm tall, so in extreme cases twin contact gives better clearance

Doesn't it need more maintenance?

No, with its higher strength, no tension and fewer flexible and moving parts, the failure risk is reduced. In the event of a failure, adjacent sections can support the bar. The solidity of the bar means that damage due to flashover is less significant. Overall ROCS requires less maintenance and fewer interventions than conventional OLE.

It must be difficult to install?

ROCS is easier and safer to install than conventional OLE. There is no tensioned wire and adjustment is simple due to minimal radial loads. A special tool is provided for efficient greasing and wire insertion. The F+F design uses fewer bolts at the bar splices and roof mounting, resulting in fast installation.

The dynamic performance must be poor at high speed?

The F+F system has been TSI certificated at much higher speeds than would be required in the UK for compliant current collection. It is proven across the world.

What about de-wirements?

The bar is very robust. We have no known de-wirements in plain line equipment. In the event of failure repairs are safer as there is no tension in the system.

How do you connect to the adjacent OLE?

The F+F transition bar provides proven TSI performance at the interface.

My tunnel is very wet. Will the aluminium corrode?

We have a dedicated protective cover to install in wet areas.

Furrer+Frey®
Overhead contact lines

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delivery and construction of Rigid
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