A.3.1.

New generation of GIL. Characteristics and applications.

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A second generation of GIL technology is now emerging.

This paper describes its main performances and features. The qualification process and manufacturing process are presented.

This technology comes out of a domain of application limited only to connections purely internal to metal enclosed substations to be applied to cases of short sections of lines with high transmission capacity.

It presents an actual example of an application where a 420 kV transmission line is being constructed using GIL technology.

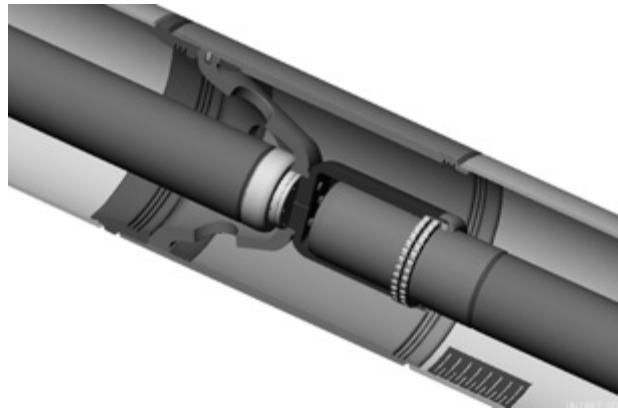
This example is relative to the construction of a new 420 kV transmission line between Hams Hall substation situated close to Birmingham and Willington East substation in the Coventry region.

The project is a part of the reinforcement of the network in the West Midlands which has been started by The National Grid Company.

The possible fields of application of the GIL technology and its future is discussed as a conclusion.

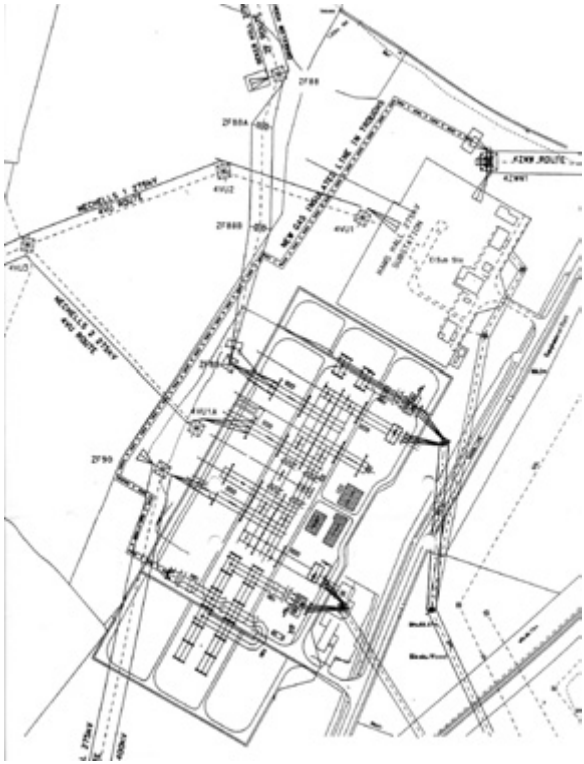
Different drawings and pictures will illustrate the paper.

For example:



Design principles:

Routing of the GIL for UK project:



Automatic orbital welding machine for factory and site: