

Sustainable solutions

An important objective in the electricity sector is to utilize the cable network in a sustainable manner. This can be achieved by extending the life of aging paper cables where possible. The oil refill joint offers a perfect solution.

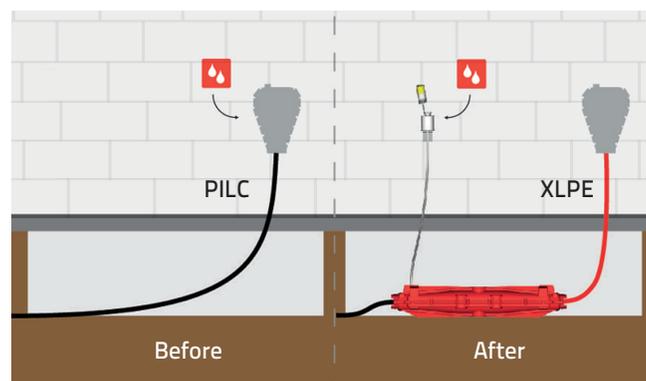
Extending cable network life span

New network sub stations are designed around switchgear for connection to polymeric cables. This requires the installation of transition joints to allow connection to existing PILC networks. In turn, this often results in disconnection from oil supplies essential to existing paper-insulated cables, thus making them susceptible to drying out and inevitable failure. Lovink Enertech has devised a special transition joint that continuously supplies oil to these cables thus preventing them from drying out.

Effective solution

A simple technique has been devised to remove a section of lead sheath without compromising the cores beneath.

A special manifold, which includes a non-return valve, is then positioned over the opening and secured in place. This enables connection to an oil supply suitable for the cable concerned. Utilizing a silicone tube along with traditional couplers and pipe-work, oil can be supplied from a conveniently located reservoir allowing easy maintenance.



LoviSil® oil refill joint



Oil refill joint > By means of a special manifold, a connection is made between the metallic sheath and an oil reservoir



Application

Where transitions from paper to polymeric cables are required on new construction, oil refill joints feed the paper cable to extend their life.

Benefits

- Continuous supply of oil
- Prevents drying out
- Extending cable network life

Voltage	Type	Cable (mm ² *)	Conductor size (mm ²)*	Type	Construction
12 kV	M75	Paper (3 core)	35 -300	1 x lead	Without inner joint
	M85	Paper (3 core)	300 -400	1 x lead	Without inner joint
	M105	Paper (3 core)	95 - 400	3 x lead	Without inner joint
		Paper on polymer (3 core)	25 -150	Connection 1 x lead	M75 inner joint
		Paper on polymer (3 core)	50 - 240	Connection 1 x lead	M85 inner joint
24 kV	M75	Paper (3 core)	35 -185	1 x lead	Without inner joint
	M85	Paper (3 core)	240 -400	1 x lead	Without inner joint
	M105	Paper (3 core)	70 - 400	3 x lead	Without inner joint
		Paper (3 core)	35 -150	Connection 1 x lead	M85 inner joint
36 kV	M75	Paper (3 core)	35-70	1 x lead	Without inner joint
	M85	Paper (3 core)	95-120	1 x lead	Without inner joint
	M105	Paper (3 core)	150 - 400	1 x lead	Without inner joint
		Paper (3 core)	70 - 300	3 x lead	Without inner joint

* Attention: Dependent on the outer sheath diameter and selected cable module.
The above sizes concern cables that fit into the joint. Different cables on request.