

# ESTER ARC SUPPRESSION COIL

Using ESTER as insulation fluid



The new natural **ESTER** filled Arc Suppression Coil (ASC) is the perfect solution to address the increasing demand for Eco-sustainable MV equipment as well enhanced safety requirements.



## ENVIRONMENTALLY FRIENDLY SOLUTION

- ESTER ASC reduces the risk of environmental damage in case of leakage or spillage
- the ester liquid is classified as readily biodegradable according to OECD 301



## ECO PERFORMANCE

ESTER ASC enables an increased eco-performance during the product lifecycle

- no pollution hazard during manufacturing, testing and operation
- reduced containment measures during operation or for storage
- reduced aging rate of cellulose – extended thermal life
- compact design  
(increased thermal capacity of short time rated **ESTER ASC**)
- recycling capabilities of components at end of life



## ENHANCED SAFETY

- superior fire safety due to a high flash points and fire point (>300°C) treating a key concern of insulating liquids especially when used in populated areas.
- class K classified according to IEC 61039
- no fire walls required



**TRENCH**  
Sense the Power



## REDUCED RISKS

No fire risk even in the case of a major failure

- ability of self-extinguishing
- reduced caloric value compared to mineral oil



## ECONOMIC BENEFITS

The special characteristics of alternative fluids like their high flame and flash point and biodegradability as well as their dielectric hygroscopic features and oxidation stability lead to financial benefits in OPEX.

### CAPEX

- the initial price for an ester-filled-ASC is usually a little higher due to material price and design adjustments.
- the higher investment can be balanced with savings in the construction of the ester ASC location.
- clearance and fire safety equipment can be reduced.
- lower costs for installation of fire safety equipment

### OPEX

- smaller footprint and lower construction costs
- insurance companies lower their annual rates for ester-filled equipment.
- lower costs for maintenance of fire safety equipment



## DESIGN FEATURES

- Effective solution also for cold climates thanks to the low pour point of synthetic ester (-56°C) and natural ester (-31°C)
- Technical characteristics as per IEC 60076-6
- Hermetically sealed:
  - no moisture ingress
  - limited oxidation
- Filled with ester fluids which are readily biodegradable
- Ester proof sealing materials (in-house endurance tested)
- Easy miscibility:
  - synthetic esters are miscible with mineral oils in all proportions
  - possibility of refilling
- Perfect solution for substation designs in full ESTER technology

**ESTER ASC** also available with **NEXT LEVEL BORN CONNECTED 3.0 – SENSCOIL® Advanced**



## KEY FEATURES

### OPERATION

- optimized asset utilization
- minimized operational risk

### SERVICE

- improved service efficiency - less service hours on equipment
- improved equipment health and safety through predictive maintenance
- higher availability of ESTER ASC

### ASSET MANAGEMENT

- improved asset transparency, productivity and management
- optimized lifecycle costs

