

ENVIRONMENTAL PROTECTION

*FOR ELECTRICAL
OIL TRANSFORMERS*



- ✓ Retention
- ✓ Filtration
- ✓ Fire suppression



AKHELEC
GMT.International

FIRE SUPPRESSION SYSTEMS

Environmental regulation compliance: EN 61936-1 Section 8.7.2 and French Clean Water legislation

TESTS AND OFFICIAL CERTIFICATION: Fire suppression: CNPP (Test report PE 09 7973), TÜV (test report 28409080_002); Water quality downstream of the FILTRELEC® cartridge: TÜV (test report 73068874 TPI 001), SGS (RES 142458.Rev1), Bureau Veritas (C-151215 -12187_Rev02).

Containment bunds with fire suppressing system - BAFv2 / BAFX product line

*All-in-one solution: transformer oil total retention, fire suppression cover, continuous rainwater filtration.
Cost efficient alternative solution to traditional heavy on-site engineering works.*



STRENGTHS

Reduces costs and on-site work:

- Replaces concrete transformer pit, concrete water/oil separator and piping.
- Modular metallic bunds fit into conventional trucks or containers to avoid extra transportation costs.
- Ensures on-budget and on-time commissioning.

Minimises loss of production risk:

- Fast on-site installation to keep heavy engineering works and the associated risks to a minimum.
- Shorter transformer consignment.
- Can be installed quickly and directly on stabilised soil in less than half a day.

PATENTS: EP 11 168 515.2 « Modular safety device for the recovery and extinction of flammable products that can leak out of an electric transformer ».

More than 100 BAFX solutions deployed.



Fire suppressing cover for existing transformer pits – MX® product line

*Extinguishing cover to equip existing concrete pit.
Alternative solution to traditional pebbles.*



STRENGTHS

- Gains significant oil retention volume in the existing pit and avoids having to destroy the existing pit and build a new, larger one when upgrading to a more powerful transformer.
- Reduces the need for maintenance and makes the concrete pit easier to access.
- Facilitates operator access and minimises risk of injury thanks to the grating cover.

PATENTS: WO2009016203 « Safety cover and retention assembly for chemical products ».

More than 800 MX® solutions deployed.



TOTAL OIL RETENTION BUNDS

Environmental regulation compliance: EN 61936-1 Section 8.7.2 and French Clean Water legislation

TESTS AND OFFICIAL CERTIFICATION: Water quality downstream of the FILTRELEC® cartridge: TÜV (test report 73068874 TPI 001), SGS (RES 142458.Rev1), Bureau Veritas (C-151215-12187_Rev02).

Heavy duty temporary storage bunds – BST product line

Make sure the environment is safe when storing your oil transformer.

STRENGTHS

- Continuously removes rainwater thanks to FILTRELEC® cartridge to keep full containment volume available
- Can be installed quickly:
 - Directly on stabilised soil.
 - Takes less than half a day.
- Can be pack, stored and re-used on another site.

PATENTS: FR2963155 « Removable and flexible retention device for recuperation of flammable oils from electric transformer in power distribution network, has trough stretched over removable structure supported on ground, where structure is formed of uprights ».

More than 100 BST solutions deployed.



Metallic total retention bunds – BR, BWR, etc. product lines

Transformer oil total retention.

STRENGTHS

- Reduces costs and on-site work:
 - Replaces concrete transformer pit, concrete water/oil separator and piping
 - Fast on-site installation to keep heavy engineering works and the associated risks to a minimum
 - Shorter transformer consignment
- Can be installed quickly and directly on stabilised soil in less than half a day.
- Continuously removes rainwater thanks to FILTRELEC® cartridge, designed to keep full containment volume available.
- Also available for ADR transformer transportation.

More than 10 000 retention bunds installed.



RAINWATER TREATMENT AND PURIFICATION

Environmental regulation compliance: French Clean Water legislation

TESTS AND OFFICIAL CERTIFICATION: Water quality downstream of the FILTRELEC® cartridge: TÜV (test report 73068874 TPI 001), SGS (RES 142458.Rev1), Bureau Veritas (C-151215 -12187_Rev02).

Water / Hydrocarbon filtration systems - FILTRELEC® product line



Continuously removes hydrocarbon free rainwater.



STRENGTHS

- Continuously drains off rainwater with guaranteed quality (< 5 ppm of hydrocarbons in accordance with the France's Clean Water legislation).
- Seals off instantly in case of sudden and massive hydrocarbon leak.
- Water flow rate from 3 to 1500 L/min.
- Keeps maintenance costs low thanks to specific pre-filtration system and optimized choice of absorbing materials.
- Filters water polluted with transformer oil, diesel, petrol, aviation fuels, vegetable oils, ester oils...

INNOVATION! Eco-designed, our brand new filter with replaceable cartridge is made of materials designed to withstand UV radiation and extreme temperatures.

- Thanks to the FILTRELEC® F5 system, you only need to replace the filter cartridge, not the entire filter, once it is saturated.
- This reduces the volume of waste produced.

The entire FILTRELEC ECODESIGN® range is protected under 3 French and European patents.



FILTRELEC® technology has been developed with refinery experts and research centres.

ENGINEERING AND ON-SITE SERVICE

Design, development and turn-key solutions.

- In-house design office with background in advanced mechanical design, fluid mechanics, sensors, etc.
- In-house chemical laboratory: development and serial production testing.
- Measurements.
- On-site environmental consulting and recommendations.
- Understanding site constraints and defining the most suitable technical and financial solutions.
- On-site equipment installation and supervision.
- Staff security clearance certification (electrical, nuclear plant, chemical and petrochemical environments).



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