

## Substations - Where safety really matters !

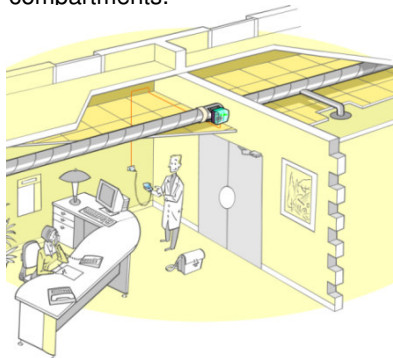


**33/11 KV Mazyad South Primary Substation – Al Ain**

Substations are a key element of the electricity distribution network in the UAE towards small districts (village, district, palm, island...) from the different power plants.

Any substations comprise many transformers from high to low voltage and different sensitive rooms like switchgear rooms and battery rooms as well, where electrical hazards are quite important. These **electrical hazards** are resulting in higher **fire hazards** in such sensitive buildings.

As a result, all substations require a **higher level of Safety** notably to prevent any fire's birth and to isolate the fire in a small volume called "compartment" to prevent or slow down at least fire, smoke and heat propagation to any other compartments.



Thanks to Aldes (France) great experience in ventilation and fire protection (compartmentation and smoke extraction), Aldes ME has been able to become a **strong partner for HVAC contractors** in this specific niche market by providing its expertise and supplying the safest and most reliable solution in compliance with high level specifications.

**"After 26 years of contracting experience in the UAE and dealing with almost all respectful HVAC related brand, we have selected M/s. ALDES as our preferable suppliers for Fire Dampers due to their remarkable sensible team, reliable product & fast delivery. M/s.ALDES sets a role model for a perfect contractor / supplier business relation."**

**Khaled S. Suleiman - York's AC & Ref.**



**Around 70 substations** have been equipped with Aldes solutions in the UAE during the past **6 years** (2004), especially in Abu Dhabi Emirate and Northern Emirates where the level of specifications is higher than in others.

This solution offering the safest compartmentation in the UAE market is called **ISONE®**.

ISONE® is a motorized fire damper (MFD), installed in fire separating walls, floors and ceilings, which is used to prevent fire, smoke & heat propagation (i.e. a Motorized Fire Smoke and Heat Damper) from one fire compartment to another one through the HVAC ductwork system.

ISONE® motorized fire dampers, as per stringent European standards **EN 1366-2**, are fully in compliance with high level substations' specifications requiring a **2 hour fire resistance without any heat transfer and smoke leakage** (EIS 120 – 500Pa\*), as well as a quick operation through a system based on smoke detectors connected to a fire alarm panel.



The specificity of these ISONE® motorized fire dampers remains their efficient **isolating blade made of refractory material** (calcium silicate). This refractory blade, totally asbestos free, prevents any heat transfer through the ISONE® motorized fire damper, and associated with an **intumescent fire seal**, there is no smoke leakage as well.



ISONE® motorized fire dampers are provided with a thermal trip (fusible link) as well as an efficient actuation system to ensure a **quick operation** via the fire alarm panel and allow also a quick and **easy maintenance**.



ISONE® motorized fire dampers are the perfect solution to ensure the safest compartmentation for any ductwork sizes including **installation in multi-sections**.



These ISONE® solutions are coming from a long and recognized experience of Aldes in Fire Protection (more than 100,000 dampers a year). One of the best proofs of our expertise is the supply of different **highly sensitive nuclear power plants** since 1992 in France.

Aldes has also just developed a specific solution for the new « Pressurized Water Reactor » nuclear power plant Flamanville.



Aldes has always focused to bring a **high level of expertise** in ventilation and fire protection systems to support our clients, and to act as a **reliable supplier fully committed to deliver quality and efficient solutions** from fans, sound attenuators, VCDs, fire dampers... to grilles and diffusers. Consequently, Aldes ME will continue to provide the best support and solutions to the UAE market to **enhance the Safety & IAQ in all buildings**, and especially in sensitive ones (hospitals, hotels, schools...).



**A full commitment towards our clients, consultants and contractors – Aldes, AADC, Mott Mac Donald & York's AC & Ref. representatives during a commissioning visit in Al Ain.**

*\*As per EN 13501-3 classification used for fire dampers and other construction products, ISONE® motorized fire dampers are classified EIS 120 – 500 Pa:*

- E: Integrity (no damage)
- I: Insulation (no heat transfer)
- S: Smoke leakage (no smoke leakage)
- 120min: timing for fire resistance
- 500Pa: pressure under which fire performances of ISONE® motorized fire dampers has been assessed