

## PROTECTION OF HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS



NUVIATech Protection, a brand from NUVIA Group, offers various protection products for ventilation and smoke control systems. Products intended for fire zoning through compartmentalization systems such as fire dampers and duct protection. Control and containment systems for ventilation systems such as dampers and containment valves. Products intended for smoke extraction networks through systems such as smoke evacuation dampers and associated duct protection.

### Context

The installations intended to ensure the admission of fresh air or the extraction of exhaust air from the rooms must be designed in such a way as to prevent the spread of fire and hot gases in any room other than that where the fire started. The ventilation system consists of ducts and in-line equipment such as dampers, flaps, bellows, sensors, etc..

The operation of ventilation and smoke extraction equipment is also in the event of a fire in order to allow the air treatment.

### Issues

The purpose of compartmentalization in an aëraulic network, is to limit the propagation of fire and hot gases in order to facilitate the safe evacuation of personnel while treating the fire in a protected area.

Containment and regulation function is also required in an aëraulic network. It is necessary to control and regulate the flow in the network.

In order to be certified, products/solutions must undergo a multitude of tests, often destructive (fire resistance), unitary or cumulative, in order to meet the different workload.

The implementation of products/solutions is a key aspect for NUVIATech Protection, because it is the key to success in the realization of a construction or renovation project. This aspect of constructability is therefore considered from the design phase to ensure installation in a complex environment that complies with certifications.

## Applicable standards and norms

The fire resistance classifications of ventilation and smoke extraction dampers and ducts are based on EN 1366-1 / -2 / -8 and EN 13501-3 (§7.2.2.4),

Our products/solutions meet 2 types of qualification :

- Regulatory qualification, according to the above norms and standards;
- Specialised qualification, according to our customers' standards;

Regulatory qualification requires that valves and ducts be tested according to the following:

- Internal fire(duct type A) and an external (Type B).
- Vertical and Horizontal.
- Maximum desired airflow conditions (Flow rates, negative pressure, etc.).
- Maximum dimensions.
- Types of position (surface mounted, offset or recessed)

The specialised qualification related to the reference system of our clients (EDF, ITER, CEA) dealing not only with fire but also with watertightness, displacements (earthquake) and any other requirements from sensitive industrial sites.

## Areas of activity



INDUSTRY



NUCLEAR



BUILDING



NAVAL / MARINE



DEFENCE