



The why and how of an “explosive circumstance”

An explosion makes a building collapse, causing the death of four people, injuries to other ten and 3,000,000 Euros worth of damage. Thanks to our scrupulous technical expertise, it was possible to ascertain the cause of the explosion and establish the legal and insurance responsibility.

In Brief

The Problem:

An explosion makes a building collapse, causing the death of four people, injuries to ten others and 3,000,000 Euros worth of damage.

The Challenge:

Ascertaining the cause of the explosion.

The Results:

Cause found: a malfunction in the stove top and the absence of the occupants caused the gas to saturate all the rooms on the first floor.

It was possible to establish legal and insurance responsibility.

Whether it is a blast, an explosion or a fire, we have the necessary experience to locate the cause and its development.

We can:

- Determine the origin and the cause of fires in homes, warehouses, vehicles, boats, etc.
- Determine the maximum temperature reached
- Carry out investigations pertaining to blasts and explosions

If you have any doubts, read the following Case History: the why and the how an explosion in an apartment building left four people dead and ten others injured.

The building in question had been built in the early 1900's with load-bearing walls. After a preliminary inspection, we immediately saw that:

- The main damage was on the first floor
- The floors above had less damage
- The façade on the first floor had been driven outwards and the worst-hit area was situated under the sill between the first and second floors, as if the origin were towards the ceiling of the apartment.
- One of the floor beams bent out leftwards (the other ones had been thrust downwards by the load-bearing wall of the façade), as if pressure had been applied from right to left and from the top towards the bottom.
- The doors had been thrust outwards in an orthogonal direction from the house by the shock waves made by the explosion.

Looking at the effects and the damage done, we were able to understand that:

- **The explosion had been provoked by a mixture of air and methane originating on the first floor.**
- **There was only one explosion with no secondary ones.**

Further investigation showed that the methane leak was due to a malfunction

in the stove top, causing the gas to saturate all the rooms on the first floor, thereby producing the explosion.



Façade of building: street view – most damage done here



Façade of first floor thrust outwards – the area of maximum warping between the first and second floors



Building seen from courtyard – the shock waves from the explosion pushed the doors outwards and the moped lumped together.

Don't wait for a fracture to happen..solve your problem now!
Call us at 02/23998225 or visit our website at **www.fa-fe.com**



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