

## Explosion Consulting

GexCon has decades of experience performing explosion consequence and risk analyses for the industry. Our leading CFD-tool FLACS can take into account important explosion mechanisms like geometry layout, gas cloud characteristics, ignition location and mitigation measures. Whether you want a quick worst-case calculation, a more realistic approach evaluating gas cloud build-up, or a full probabilistic approach, we can help you. CFD should be used for layout decision support and mitigation measures. FLACS is also a very powerful tool to study accidents scenarios. Below you will find some of the studies we can offer.

### Explosions in petrochemical plants (API 752)

- Account for cloud shape, confinement & congestion distribution
- Dispersion study to limit possible explosion consequences
- Evaluate mitigation possibilities (layout, ventilation, deluge)

### Explosions in buildings, vessels and systems

- If NFPA-68 is not valid (scale, L/D, multi-vessel, congestion, duct)
- Whole volume filled with gas is unrealistic and too conservative

### Hydrogen explosion safety

- New technology gives new challenges, very safe or very hazardous
- Study of cloud generation and explosion development
- Choose safe layout or mitigation option

### Offshore platform or FPSO explosion study

- FLACS preferred tool for offshore explosion studies
- Probabilistic or realistic worst-case approach

### Dust explosion modeling

- Evaluate required vent design and need for mitigation
- Understand incidents and prevent recurrence

### Accident Investigation

- We can help determine cause and origin
- FLACS dispersion & explosion models powerful in reconstruction
- What more could have happened, how to prevent a new incident?

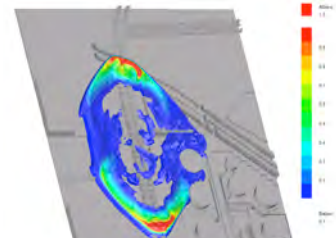
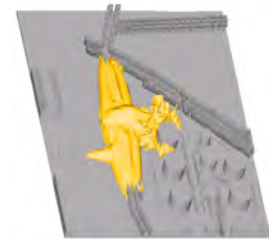
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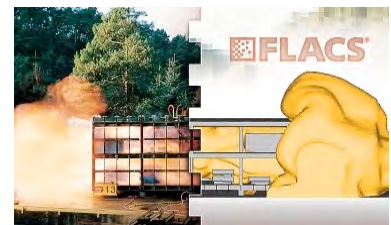
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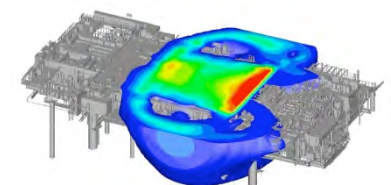
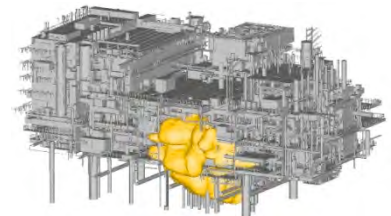
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Realistic blast modeling



Vent sizing



Vapor Cloud Explosions

**FLACS**

is a leading CFD software  
for consequence modeling  
developed by GexCon