

FLACS-CFD 22

Trusted, powerful and
comprehensive industrial
safety simulation



FLACS-CFD 22

Our powerful industry-leading computational fluid dynamics software simulates the dispersion of hazardous materials, fire and explosion with results that you can trust.

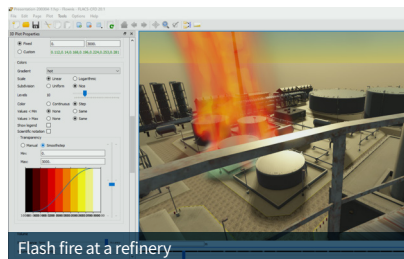
Designed for ease of use and multiple environments, FLACS-CFD 22 represents more than 40 years of extensive and unrivalled modelling and validation work based on real life testing.

Our latest edition has been re-written from the ground up to offer better integration and digitalisation capabilities, improved workflows and greater flexibility than ever before.

With continuous development and investment, FLACS-CFD 22 helps raise the true level of safety for complex industrial environments.



High-pressure gas release inside a building



Flash fire at a refinery



Release of hydrogen at a refuelling facility

New key features and benefits

- **Wider field of application**

Models flammable and toxic release scenarios for approximately 1,800 chemical components based on the DIPPR database.

- **Enhanced Geometry Modelling**

Seamlessly incorporate complex CAD Models. Integrate intricate CAD designs directly, streamlining workflows and enhancing accuracy.

- **Detonation Modelling**

Effortless detonation prediction and consequence analysis. Automatically predict the transition from deflagration to detonation, and simulate the subsequent consequences with precision and ease.

“Simulation software built upon more than 40 years of industrial safety modelling and validation to deliver results quickly, easily and accurately.”

Chris Coffey
VP Products

A comprehensive safety tool

FLACS-CFD 22 is a suite of 3D computational fluid dynamic tools with a series of standard modules and additional modules designed to meet specific requirements.

Standard modules

- **CASD and FLOWVIS**

High performance graphical user interfaces for setting up scenarios (CASD) and post-processing the results (FLOWVIS) makes FLACS-CFD significantly faster than other CFD tools. Users can easily import CAD from a large range of formats and view results in a high-quality 3D output.

- **FLACS-GasEx and FLACS-Dispersion**

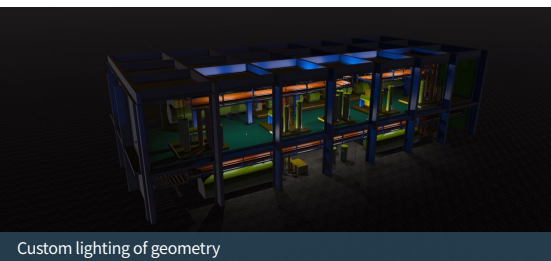
These modules form the core of FLACS-CFD and are used extensively to understand the consequences of an explosion in complex and large-scale industrial environments. They allow the user to model the release and dispersion of a gas/vapour and model an explosion to support risk assessment and design processes.

Additional modules

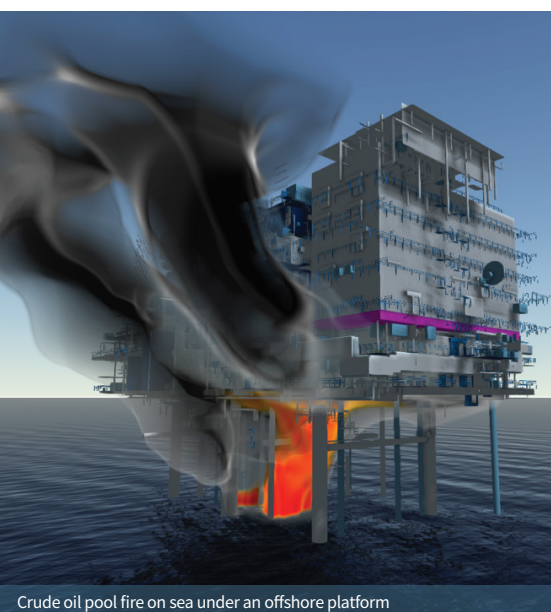
- **FLACS-Hydrogen**
- **FLACS-DustEx**
- **FLACS-Fire**
- **FLACS-Blast**
- **FLACS-Cloud**

Detailed functionality

- Efficient set-up of scenarios/simulations
- Features all environmental conditions
- Includes effects of real geometries
- Includes various mitigation measures
- Comprehensive user guidelines based on extensive validation against experiments
- Available for both Windows and Linux
- Dedicated FLACS-CFD 22 training and help desk



Custom lighting of geometry



Crude oil pool fire on sea under an offshore platform

Improving safety and driving efficiencies across multiple industries

FLACS-CFD 22 can be used across different industrial environments to predict consequences of major disasters including all key contributing and mitigating effects.

It has been developed alongside oil, gas and process industry leaders and is now relied upon by engineers working in sectors including aerospace, automotive, pharmaceutical, energy and food production.

With decades of experiential data to give users the answers they can rely upon, FLACS-CFD 22 is ideal for a range of applications at all phases of design:

- Offshore and onshore explosion studies
- Design load calculations
- Siting studies
- Gas detector optimisation
- Toxic dispersion calculations
- Dust explosions
- Jet and pool fire modelling
- High explosive blast modelling
- Quantitative Risk Assessment
- Accident/incident investigation

Request a demonstration

Email the FLACS technical sales team to speak to your local representative and find out more.

FLACS@gexcon.com



Dust explosion in a large wood-pellet silo

“FLACS-CFD has relevance through the lifecycle of an asset from design and construction phases to the operational phase as well as to support modifications and decommissioning.”

Paul Taylor

CEO Gexcon Software

FLACS-CFD is a Gexcon brand

Gexcon is a global knowledge and technology leader in dispersion, fire and explosion safety and risk management. Our experience arises from detailed knowledge of explosion phenomena built up through years of extensive research projects, carrying out safety assessments, performing accident investigations and experimental, physical testing at our dedicated facilities.

For more information and product enquiries:

Email: FLACS@gexcon.com

Norway +47 55 57 43 30
UK +44 1925 202430
France +33 642 191787
Europe +47 55 57 43 30
Australia +61 8 92 27 80 01

China +86 139 1663 9854
India +91 20 65 200 818
Indonesia +62 21 2278 1711
USA +1 301-915-9922
Middle East +971 50 9040568

Gexcon AS, Fantoftvegen 38, NO-5072 Bergen, Norway

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