

# Computer Models For Fire and Smoke

<i>Model Name:</i>	FIREX
<i>Version:</i>	FIREX 2.2 (D)
<i>Classification:</i>	Semi-empirical relations and simple zone models
<i>Very Short Description:</i>	FIREX is a consequence fire modeling package based on various semi-empirical prediction methods and mathematical models
<i>Modeler(s), Organization(s):</i>	Dr. Volker Schneider, I.S.T. Integrierte Sicherheits- Technik GmbH, Frankfurt / M., Germany  Dr. Jan P. Stensaas, SINTEF, Trondheim, Norway
<i>User's Guide:</i>	FIREX 2.2 – Users' Guide (available in German and English)
<i>Technical References:</i>	FIREX 2.2 – Technical Reference (available in German and English)
<i>Validation References:</i>	FIREX 2.2 Technical Reference  Jan P. Stensaas: FIREX - System for Fire Risk Assessments: Prediction Methods for Estimation of the Main Fire Characteristics of Hydrocarbon Fires Offshore, SINTEF Report STF25 F89012, 1990  V. Schneider, J. Hofmann: Modellierung von Kohlenwasserstoffbränden mit dem rechnergestützten Analysesystem FIREX, vfdb-Zeitschrift 2 (1993) 76
<i>Availability:</i>	I.S.T. Integrierte Sicherheits-Technik GmbH, Feuerbachstr. 19, 60325 Frankfurt / M., Germany, Phone (069) 72 11 68, Fax (069) 72 11 94, Email IST-HSK@t-online.de
<i>Price:</i>	9.950,- DM (not including VAT)

*Necessary Hardware:* Intel architecture, running DOS 6.0 or later

*Computer Language:* C

*Size:* Approximately 5MB of disk space, at least 16MB of RAM required

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*Detailed Description:*

FIREX is a menu driven package for fire assessments. It provides 8 scenarios: Pool fire in the open, enclosed pool fire, jet fire, diffusive flare fire, fire ball, oil slick fire at sea, room fire and explosion. FIREX is designed as a tool for safety analysis and design. The system includes a graphical interface for input and output. It is linked to four data bases (fuel data, room geometry data, target data and release types). These data bases are provided together with the executable program and can be modified and extended by the user. In addition, FIREX includes extensive online help functions and graphical capabilities. The models included are empirical correlation functions and simple mathematical models (zone models and engineering relations) that give instantaneous response.

Reliable results are only to be expected within the limits given by the range of the empirical data the correlation functions are based on. However, the user is assisted by help functions and internal consistency checks on input data.