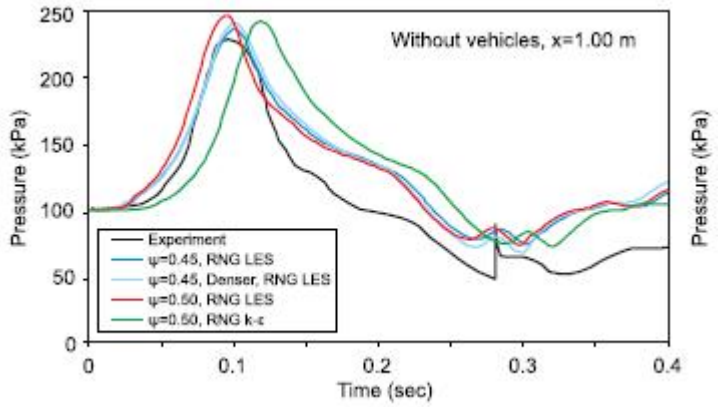
Verification type	Sensitivity Studies (Grid and Parameter sensitivity)
Database reference	SEN-6
Topic / Application	Hydrogen release in tunnels
Physics	Deflagration
Summary	Paper undertakes a sensitivity analysis of solution outputs to grid size, turbulence models, and turbulence flame speed
Description	In this paper CFD modelling techniques are used to simulate deflagration in homogenous, near stoichiometric hydrogen air mixture in a model of a tunnel. The authors undertake a sensitivity study on grid size flame propagation velocity, and turbulence model.
Case Title	
Authors	I.C. Tolias, A.G. Venetsanos, N. Markatos, C.T. Kiranoudis
Year	2013
Online reference	international journal of hydrogen energy 39 (2014) 2053 8e2 0 5 4 6
Case image	 Example comparing simulated pressure peak.
Governing equations	
Results	While grid size did not have a material impact on results, flame speed variable was very important. Turbulence modelling only affected the arrival of the pressure peak

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