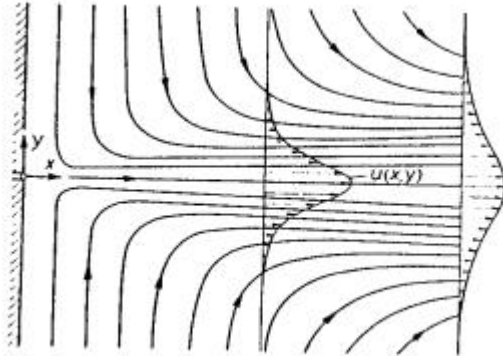


SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies

Verification type	Analytical Solutions
Database reference	ANA-7
Topic / Application	Jet releases
Physics	Laminar Flow Jet Flows
Summary	Analytical Solution for Laminar Two-Dimensional Jet
Description	Using boundary layer theory analysis and similarity assumptions this reference derives an analytical expression for velocity evolution for laminar jets issuing from an infinitely thin two-dimensional slit and from a circular nozzle:
Case Title	Laminar Two-Dimensional Jet
Authors	University of Ulster
Year	Dmitriy Makarov, University of Ulster
Online reference	Susana deliverable 4.1
Case image	 <p>Schematic of streamline pattern for the jet (Schlichting, 1979).</p>
Governing equations	Available in source reference
Results	Verification is not undertaken in this paper, rather it presents the analytical solution that could be used for verification.