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INFLUENCE OF STRUCTURED SURFACES ON IMPINGING JETS AERODYNAMICS

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The study is concerned with a CFD numerical modeling of a jet impinging on a smooth wall and a solid surface with one-direction square grooves is used. Both cases are concerned with the non-stationary jet dynamics in the area where the jet is deflected from axial to radial direction. The numerical simulations are correlated for validation with corresponding experimental flow visualization.

FLOW DOMAIN AND BOUNDARY CONDITIONS



Reynolds averaged Navier-Stokes simulations are performed using the Fluent code in a 2D and a 3D domain with symmetry



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