

# PROBLEMATIC ISSUES CONCERNING PROVISIONS FOR GROUND TESTS OF SCRAMJET DEMONSTRATORS

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## Abstract

The article deals with the problematic issues of providing complex ground tests of high-speed ramjet engines demonstrators. Approved schemes of experimental installations for investigation of combustion in subsonic and supersonic flows are presented. Schemes allow most adequately estimate the coefficient of fuel combustion efficiency in the connected-pipe tests of model combustion chambers. For the purpose of more correct interpretation of the obtained experimental data during altitude tests of high-speed ramjet demonstrators in free jet, both object and test cell diagnostics of the flow interacting with the test object are considered. Some results of complex tests of the high-speed ramjet demonstrator are presented.

**Keywords:** Scramjet Demonstrators, Connected Pipe Test, Altitude Test In Free Jet