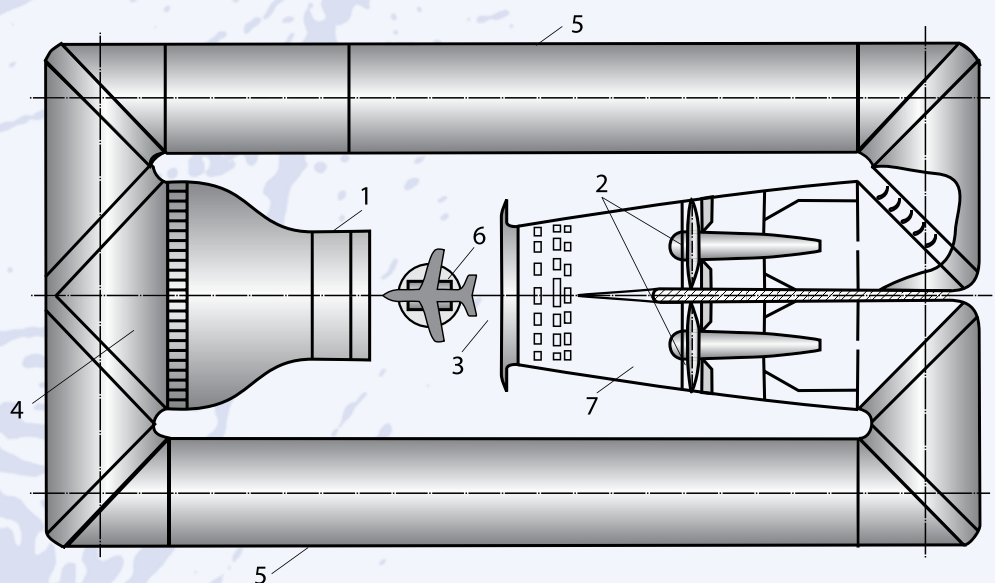


Main Technical Parameters

Flow velocity	5...52 m/s
Reynolds number per 1 m	up to $3.6 \cdot 10^6$
Static pressure	atmospheric
Dynamic pressure	up to 1.7 kPa
Stagnation temperature	ambient
Angle of attack (α) range	$\pm 20^\circ$
Side slip angle (β) range	$\pm 180^\circ$

Test section sizes:	
Nozzle cross section (ellipse)	24 × 14 m
Length	24 m
Tested object sizes:	
Wingspan	up to 18 m
Fuselage length	up to 30 m
Wing area	up to 35 m ²

1. Nozzle
2. Fans
3. Test section
4. Stilling chamber
5. Reverse channel
6. Six-component balance
7. Diffuser



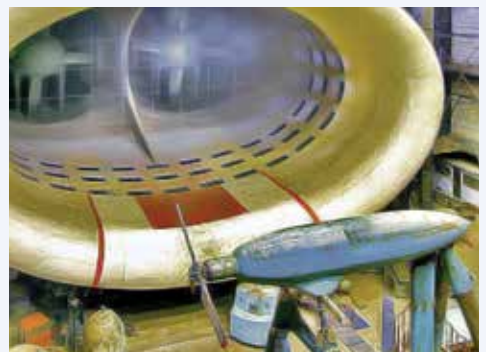
General Description

T-101 Subsonic Wind Tunnel is a continuously operating closed layout test facility with two reverse ducts, open test section. Two fans of 30 MW total power generate the airflow. The Wind Tunnel is equipped with six-component balance and the tested object remote control system. The registration, the acquisition and the processing the test results are accomplished by using the state-of-the-art measuring and computing complex.

Capabilities

T-101 WT provides the following characteristic tests to be carried out:

- Determination of aerodynamic performances of full-scale flying vehicles (airplanes, helicopters etc.) or their large-scale models;
- Estimating the control surfaces aerodynamic loads by using the internal strain-gage balance;
- Measuring the pressure distribution on the flying vehicle surface;
- Research of various ice-accretion types effect on the aerodynamic properties of flying vehicle and its components (wing, empennage, etc.) and the controls efficiency;
- Research of characteristics of parachutes, paraplanes and hang gliders;
- Studies of wind exposed industrial objects;
- Various methods of physical research of flying vehicles and other objects or their models under high Re numbers.



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Technological Advantages

- Capabilities to carry out the various full-scale objects or their large-scale models tests under high Re numbers.
- Testing the airplanes and helicopters or their models with actual engines or engine simulators.

Application

Practically all the national aircraft and helicopters as well as the various industrial objects were tested in T-101 WT.