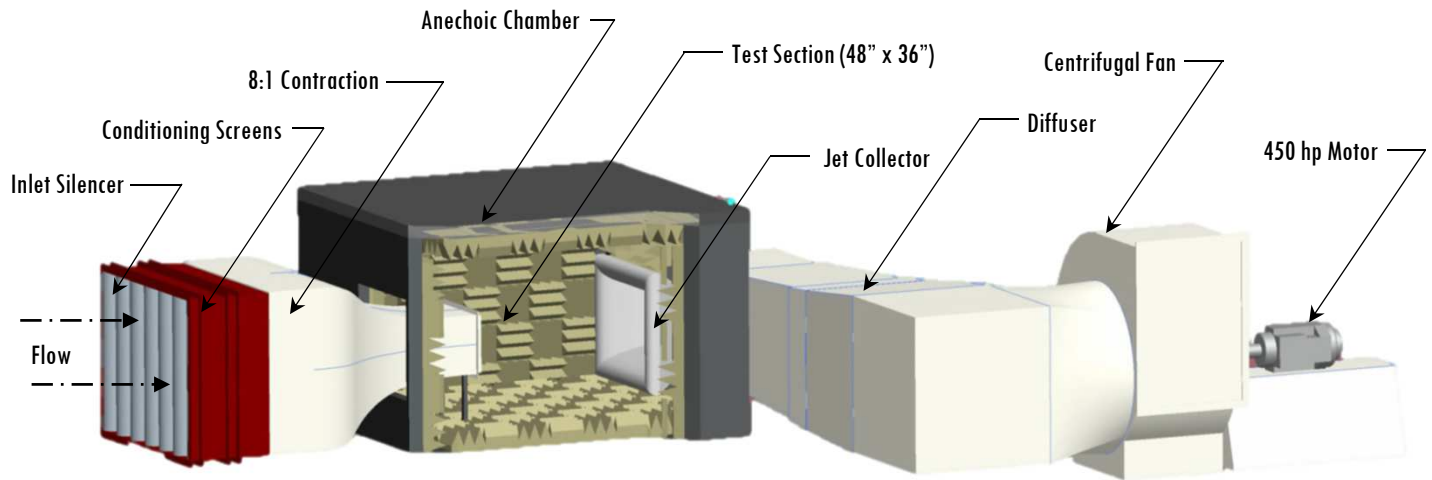
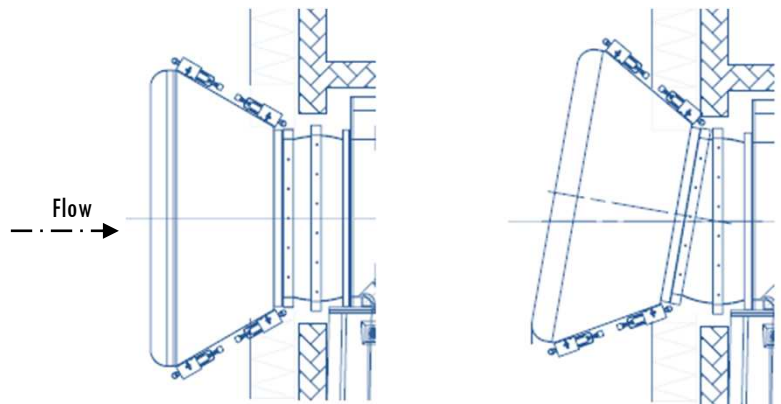




# Anechoic Wind Tunnel



Advanced Diagnostics
Steady and Unsteady Pressure Distributions
Lift and Drag Measurements
Hot Wire Anemometry
Particle Image Velocimetry (PIV) <ul style="list-style-type: none"> <li>• Stereoscopic</li> <li>• Tomographic</li> </ul>
Pressure Sensitive Paint (PSP)
Laser Doppler Velocimetry (LDV)
Acoustics – Directivity and Source Localization <ul style="list-style-type: none"> <li>• Linear Arrays</li> <li>• 80-Channel Phased Array</li> </ul>



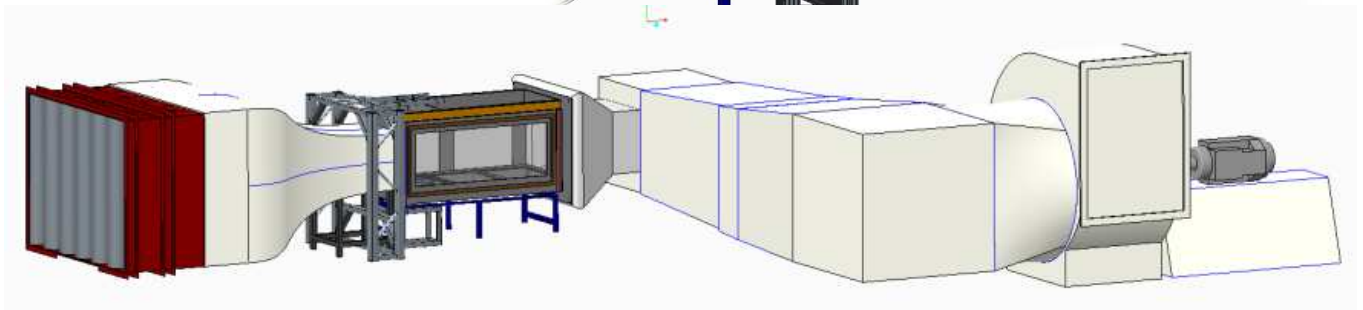
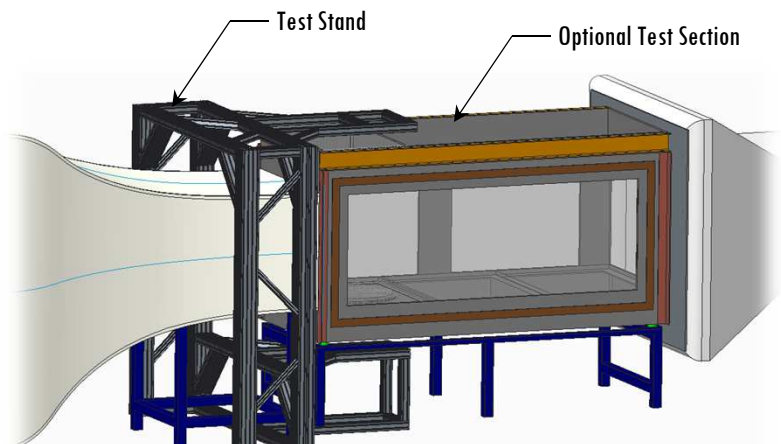
**Jet collector (top view)**

Capable of swiveling  $\pm 10^\circ$  off streamwise axis to catch the tunnel jet, especially useful for high-lift configurations.

The FSU Anechoic Wind Tunnel is an open-circuit subsonic facility which has a 36" x 48" x 120" test section with a speed range of approximately 18-75 m/s. The facility employs a 450-hp centrifugal fan and has an anechoic chamber with a 250 Hz cut-on frequency enclosing the test section. The open-jet can be converted into a closed-wall wind tunnel as it has a removable test section with excellent optical access. The facility will be used for aerodynamic and aeroacoustic studies of various flow-induced noise phenomenon and boasts state-of-the-art experimental fluid dynamic and aeroacoustic measurement capabilities.

## Closed Walled Configuration

The optional closed walled test section has exceptional optical access for non-intrusive flow measurements and is equipped with a versatile modular test stand to tolerate the variety of experimental setups encountered.



## Specifications

Item	Specification
Wind Tunnel	Open-circuit, open-jet or closed walled
Test Section	48" x 36" x 120"
Mach Number Range	0.05 – 0.22
Anechoic Chamber Low Frequency Cutoff	250 Hz
Background Noise*	80 dBA (M = 0.15)
Turbulence Intensity	< 0.1%
RMS Inlet Flow Nonuniformity	< 1%

\*Currently not fully treated

## Contact

### Faculty

**Dr. Louis Cattafesta**   **Dr. Farrukh Alvi**  
 lcattafesta@fsu.edu   falvi@fsu.edu  
 (850) 645-0109   (850) 644-0053

### Contact Information

Florida Center for Advanced Aero-Propulsion  
 Florida State University  
 2003 Levy Ave  
 Tallahassee, FL 32310