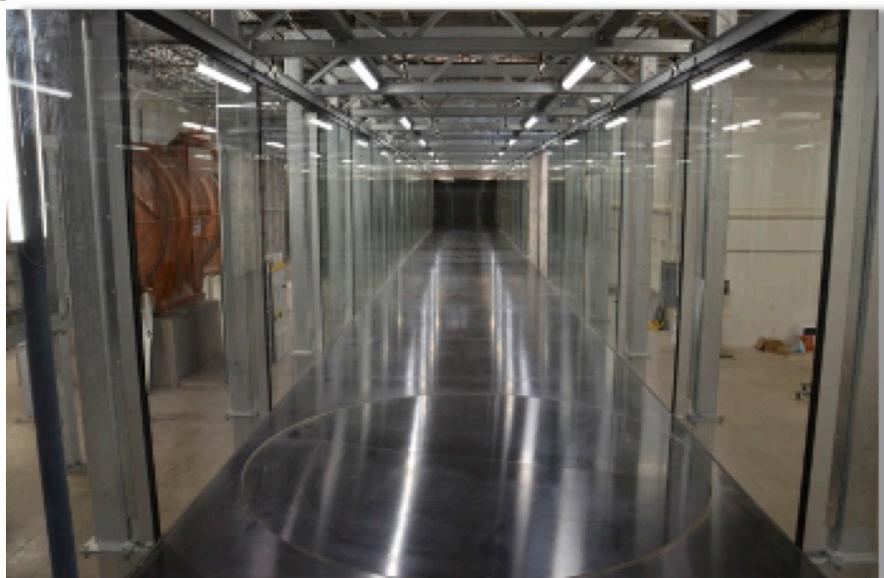
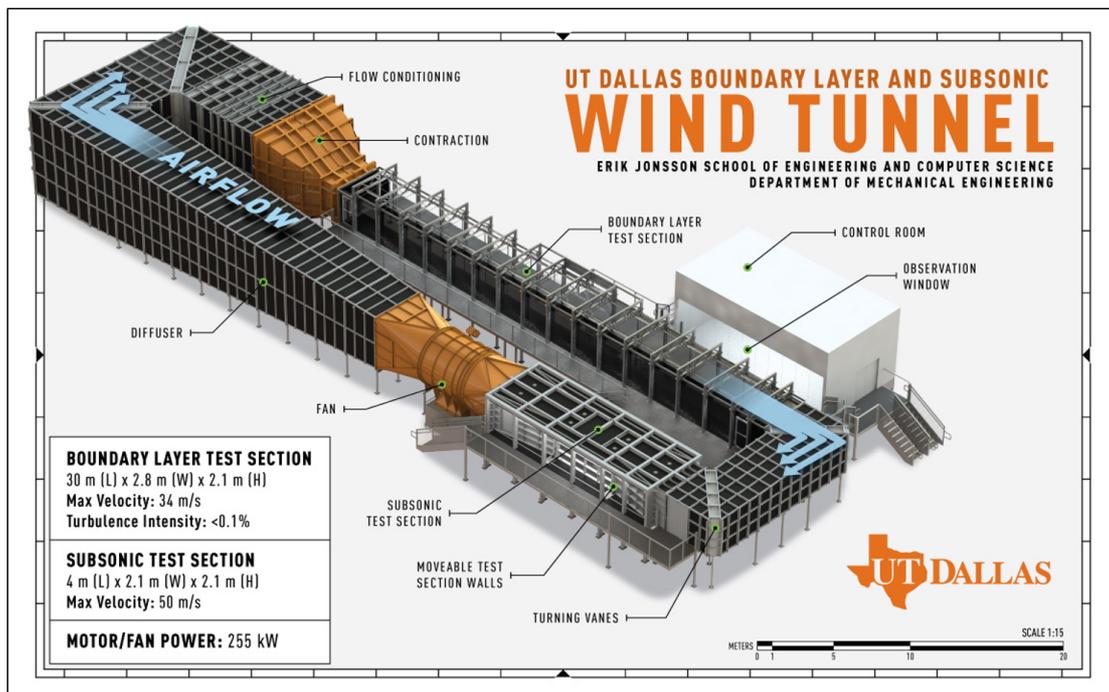
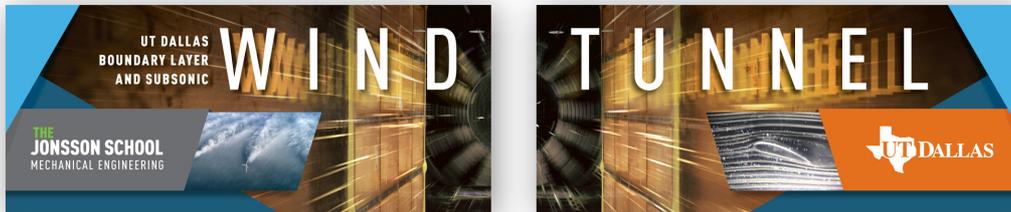
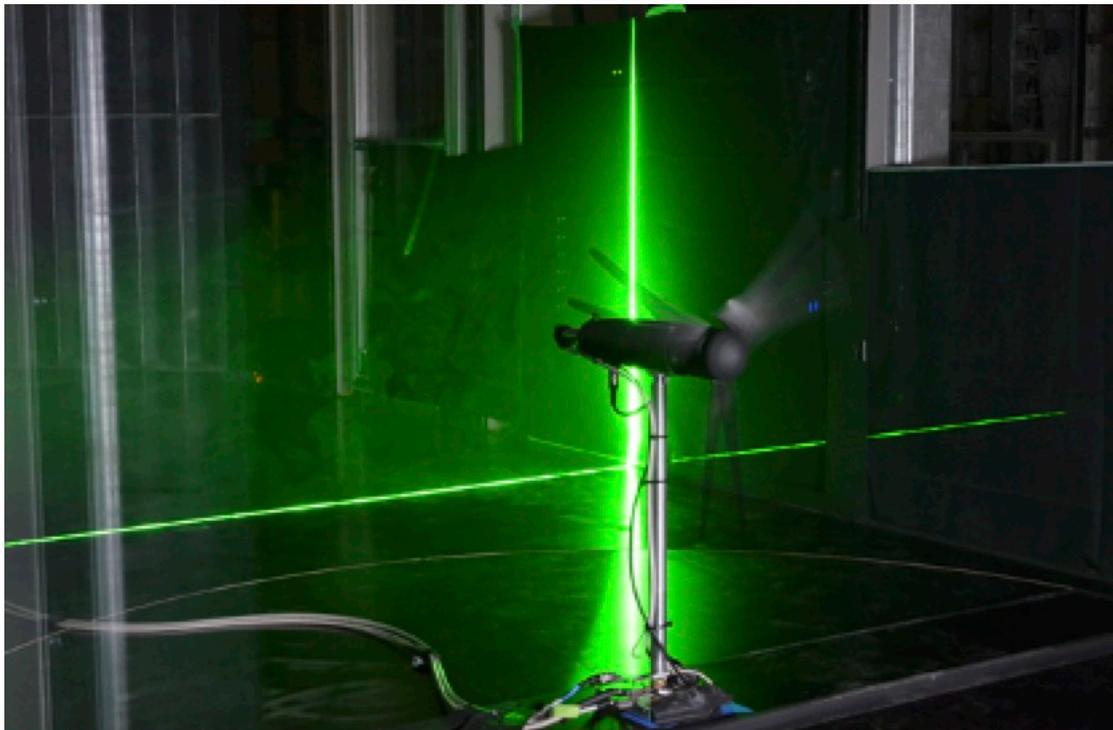


# UT Dallas Boundary Layer and Subsonic Wind Tunnel (BLAST)

## Description of facility

### Pictures:





 UT DALLAS

UT DALLAS  
INAUGURATES  
ITS NEW  
WIND TUNNEL  
WITH A

**BLAST**

ERIK JONSSON SCHOOL  
OF ENGINEERING AND COMPUTER SCIENCE  
DEPARTMENT OF MECHANICAL ENGINEERING

## **General description**

Type: Göttingen type wind tunnel  
Configuration: Closed test section  
Cooling: Temperature control  $\pm 1^\circ\text{C}$  ambient temperature

Boundary layer test section:

2.8-m W x 2.1-m H x 30-m L (width x height x length); max velocity 35 m/s, minimum TI 0.09%; turntable (diameter 2.8m)

Subsonic test section:

2.1-m W x 2.1-m H x 10-m L (width x height x length); max velocity 50 m/s, minimum TI 0.9%; turntable (diameter 2 m)

## **Measurement equipment:**

PIV: LaVision stereo-PIV low-speed; TSI stereo-PIV high-speed

Particle Concentration:

LaVision LED/Laser Shadowgraphy

Pressure: 12 Prandtl tubes with Setra pressure transducers with different ranges

Pressure: ESP pressure scanners 128 channels pressure scanner

Forces: Various ranges of ATI 6-deg force sensors

Velocity: Hot-wire anemometry 6 channels AA-Lab, Dantec 3D calibrator

Temperature: Thermistors, thermocouples

## **Additional equipment:**

Passive grid: Regular passive grid

Traverse: 3-axis traverse system ()

## **WEA Models:**

Various models from 60-cm rotor diameters down to porous disks with 5-cm rotor diameters.

**Website:** <https://www.utdallas.edu/windflux/facilities/>

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