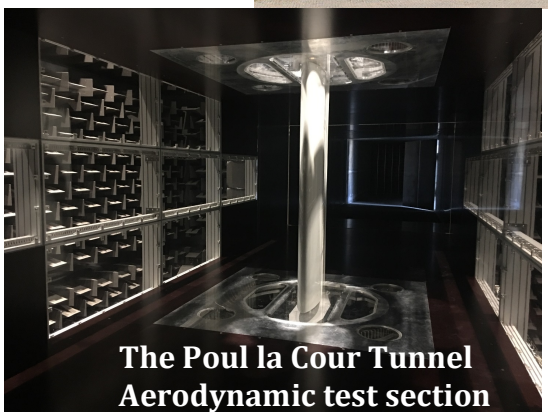
The Danish Aerodynamic and Acoustic Wind Tunnel

The Poul la Cour Tunnel

DTU Risø Campus

Description of facility

Pictures:



General description

Type:	Göttingen type wind tunnel
Size of test section:	3m x 2m x 9m (width x height x length)
Configuration:	closed (aerodynamic) and hybrid (aeroacoustic/Kevlar walls) test section
Velocity range:	up to 80m/s in hybrid test section up to 110m/s in closed test section
Background Ti:	below 0.1%
Cooling:	yes – can keep constant temperature at all velocities
Additional features:	turntable (diameter 1.3m) in floor and ceiling of closed test section with high precision and fast positioning of angle of attack

Measurement equipment:

Pressure:	384 channel pressure scanner with 128 for the model, 128 for the hard walls and 128 for the wake rake. Wake rake with traverse orthogonal to the flow in horizontal and vertical direction 3m downstream of turntable center
Forces:	3 component force balance
Velocity:	Dantec Streamline system
Temperature:	Pt100

Additional equipment:

Anechoic chamber:	surrounding the test section and anechoic between 100Hz and 10kHz

Airfoils:

NACA 63_3-418 (chord=1.0m) spanning from floor to ceiling
NACA 63-018 (chord=0.9m) spanning from floor to ceiling

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