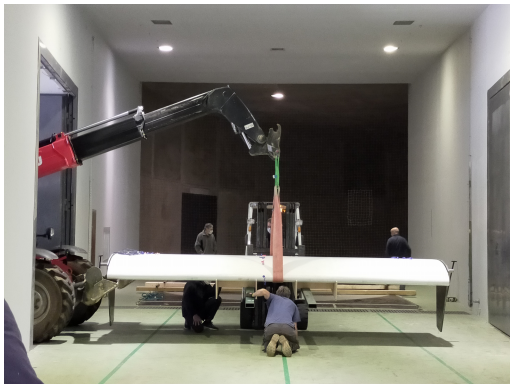
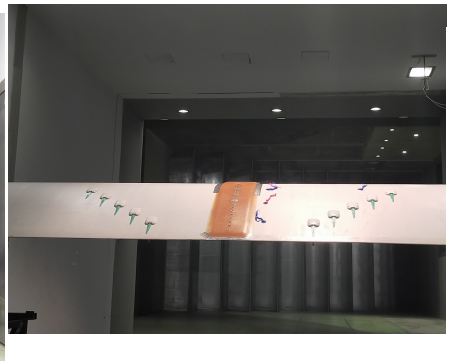
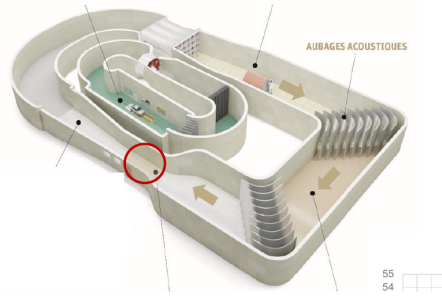
Aerodynamic section test of CSTB wind tunnel, France

Description of facility

Pictures:







Aerodynamic test section

General description

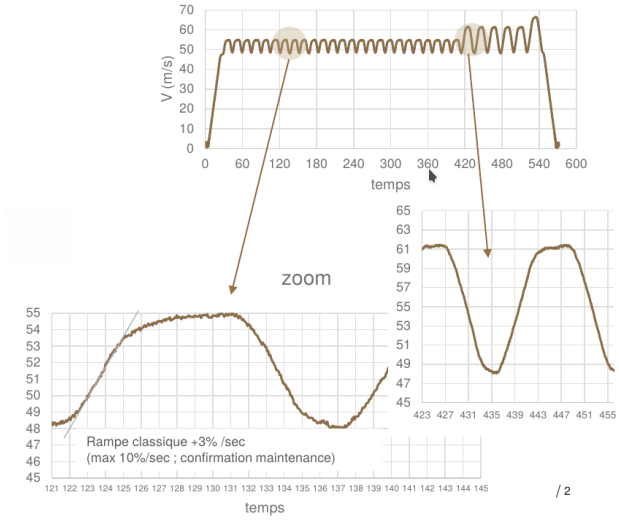
Type:	Göttingen type wind tunnel
Size of test section:	6m x 5m x 12m (width x height x length)
Configuration:	closed test section
Velocity range:	70m/s
Background Ti:	below 1%
Cooling:	no

Measurement equipment:

Pressure:	1000 simultaneous pressure measurements (1kHz each)
forces:	6 component balance (rotor only, blade in progress)
Velocity:	Prandtl tube
	fast Prandtl tube (100Hz)
	5 holes pressure sensor (1kHz)
	Stereo Particle Image Velocimetry (PIV) up to 10 kHz

Additional equipment:

Gust generator: ~+7m/s in 2s



Blade Models:

Blade section at 80% blade span of an operating turbine (Senvion 2MW MM92) (Full scale)

Inflow conditions:
CFD simulations of the entire wind tunnel circuit
Mean velocity measurement at the test section

Website: Data will be available at the end of ePARADISE project (around 2024).

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Other test sections: