



## Identification of the installation/facility :

Country: Germany  
Location (city): Bremen  
Name of the facility: Low Speed Wind Tunnel Bremen  
Date of construction or of acquisition or of main refurbishment:  
1970, continuously refurbished  
Owner: AIRBUS Operations GmbH  
Contact point: Klaus Muthreich  
Internet site: na

## Technical characteristics:

### 1 - Type of infrastructure

Wind tunnel	<input checked="" type="checkbox"/>
Propulsion bench	<input type="checkbox"/>
Structures facility	<input type="checkbox"/>
Material facility	<input type="checkbox"/>
Simulator (ex. Flight simulator, tower, ...)	<input type="checkbox"/>
Flight test bed (aircraft, embedded facilities, ...)	<input type="checkbox"/>
Supercomputers	<input type="checkbox"/>
Other	<input type="checkbox"/>

### 2 - Main technical characteristics

For wind tunnels : max velocity (or Mach number) 85m/s, test section area 2,1x2,1m<sup>2</sup>, max Rey/m, special features Eiffel type, closed test section, ambient pressure & temperature; continuous power; (power if continuous, pressure and temperature if blow down, ...)

For aeroby propulsion bench: air mass flow, temperature, pressure, type of fuel,...

For solid combustion bench : max force,...

### 3 - Research domains which can be addressed (refer to ACARE taxonomy <http://www.acare4europe.com/docs/ASD-Annex-final-211004-out-asd.pdf>)

### 4 - Main (or specific) associated measurement techniques

engine simulation (Turbine Propulsion Simulators) capability and other air motors with & without exhaust air return duct; force -& surface pressure measurements, internal- & external 6-component balances, model deformation measurements during testing, wake flow investigations via more hole probes/rakes, unsteady measurements, and laser based techniques like LDA & PIV

### 5 - Operational status

- Fully operational (hours available in 2010) fully operating over the year
- Sleeping but possible to reactivate within 6 months (or a reasonable time frame)
- Not used since 5 years or more



6 - picture



**Financial elements:**

Replacement cost (M€uros)

Less than 10

10 to 30

30 to 60

60 to 100

More than 100

**Practices concerning:**

Access policy (contract, voucher, free access for research, etc...) to be contacted

Support (regional, national, European, private, ...) Company owned facility, open for external customers

**Comments:**

**Origin of information** ('signature'): author and date

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