



Identification of the installation/facility :

Country: Sweden
Location (city):Bromma (Stockholm)
Name of the facility:STARCS T1500
Date of construction or of acquisition or of main refurbishment:1989
Owner:STARCS
Contact point:Mikael Tjernlund
Internet site:www.starcs.se

Technical characteristics:

1 - Type of infrastructure

- Wind tunnel
- Propulsion bench
- Structures facility
- Material facility
- Simulator (ex. Flight simulator, tower, ...)
- Flight test bed (aircraft, embedded facilities, ...)
- Supercomputers
- Other

2 - Main technical characteristics

For wind tunnels : max velocity (or Mach number), test section area, max Rey/m, special features (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,...
Subsonic-Transonic wind tunnel with 1.5 by 1.5 m test section, Mach number 0.2 - 1.25 continuously variable, fixed blocks for mach number 1.35 - 1.42 and mach number 1.7. Transsonic test section with slotted walls and plenum exhaust system, Stagnation pressures 110 - 550 kPa. Powered by injection of high pressure air into a closed circuit, available run time 40 - 120 s depending on run conditions. Typically 20 - 25 runs per eight hour shift

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

- 1. *Flight physics*
 - Aeronautical propulsion integration*
 - High-Lift engine airframe integration*
 - Flow control*
 - Airflow control*
 - Flow control*
 - Adaptive winglets*
 - High-Lift engine airframe integration*
 - High lift devices*
 - Specific low-noise aircraft configuration*
 - High lift system design*
 - Wing design*
 - Adaptive winglets*
- 10. *Innovative concepts & scenarios*



*Unconventional configurations and new aircraft concepts
High aspect ratio/low sweep configuration
Blended wing body configuration*

*4 - Main (or specific) associated measurement techniques
Force and moment measurement using internal balance and sting mounted
pitch and roll mechanism. Semi span installation, Schlieren optical system. PIV, PSP,
store release simulation rig, installations for air intake testing. Simulation of jet
plumes using cold air*

5 - Operational status

| Fully operational

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...)
Commercial customers, Research at reduced price.

Support (regional, national, European, private, ...)
No external support at present.

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

Per Davidsson 2011-01-17