



Identification of the installation/facility :

Country: Sweden
Location (city):Bromma (Stockholm)
Name of the facility:STARCS HYP500
Date of construction or of acquisition or of main refurbishment:1965
Owner:STARCS
Contact point:Mikael Tjernlund
Internet site:www.starcs.se

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), 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,...
Cold Hypersonic wind tunnel with circular fixed 0.5 m diameter nozzles for mach 4 and mach 7.15 stagnation pressure 2.4 MPa at mach 4, 10 MPa at mach 7.15 stagnation temperature up to 800 K. Blow down operation from a high pressure storage, typical run time 60 - 120 s, maximum 8 runs per day limited by reheating of heat storage. Rig for testing rocket nozzles using the available air supply system.

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

Force and moment measurement using internal balance and sting mounted on an angle of attack mechanism. Schlieren optical system.

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.

Comments:

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

Per Davidsson 2011-01-17