

## Plasma Wind Tunnels (PWT)

### Type of Infrastructure

Hypersonic Facility

### Main technical features

<b>SCIROCCO DATASHEET</b>			
Arc Heater electrical power (max.)	70MW	Air Mass flow	0,2 – 3,5kg/s
Total enthalpy	2,5 – 45MJ/kg	Test duration	Up to 25min.
Heat Flux	125 – 3000kW/m <sup>2</sup>	Test Chamber size	9,2m (H) x 5m (D)
Flow speed	2000 – 7000 m/s	Nozzles Diameter (m)	0,9; 1,5; 1,35; 1,95

<b>GHIBLI DATASHEET</b>			
Arc Heater electrical power (max.)	1,75MW	Air Mass flow	1 – 36g/s
Arc Heater total enthalpy	10 – 30MJ/kg	Test duration	Up to 25min.
Heat Flux	125 – 3000kW/m <sup>2</sup>	Test Chamber size	2m (L) x 1,8m (D)
Flow speed	3000 – 5000 m/s	Nozzle Diameter (mm)	152,4

### Application Domains

- High Enthalpy Facilities for on ground re-entry simulation

### Main measuring instruments/techniques

At the Plasma Wind Tunnels complex there is a wide portfolio of instruments and measurement techniques ranging from non-intrusive diagnostics using thermography, pyrometry, spectroscopy and Laser Induced Fluorescence (LIF) to intrusive diagnostics with measurement of heat flow, temperatures, pressures, deformations and total enthalpy.

### Operational Status

The SCIROCCO plant is fully operational

GHIBLI in under extraordinary maintenance and will resume activities by Dec 2023.

### SCIROCCO



**GIBLI**

